Comparative analysis of organisation surveys in Europe

D8.2: Literature review of secondary analysis

Monique Ramioul
Rik Huys
HIVA-K.U.Leuven

CIT3-CT-2005-006193

Table of contents

1 Introduction

During the first year of the WORKS research project an inventory and benchmark was made of major organisation surveys in Europe (Work Package 4: 'Quantitative analysis. Feasibility study and benchmarking of the national and European statistical system in respect of the quantitative analysis of changes in work'). This benchmarking study showed that a number of analyses are available based on the data of these surveys which are relevant for the WORKS project. This existing material can provide insights into major trends on the issues related to changes in work. It is therefore useful to access the secondary results of the major organisation surveys in Europe to integrate the existing know-ledge on organisational change.

As a first step, an inventory was made of the publications of major organisation surveys in Europe and grouped according to the five key issues for the WORKS project. These are (cf. Final deliverable of Workpackage 4: 'Questionnaire and survey data base on organisational surveys and a review of existing statistical resources with documentation of key indicators for measuring organisational change in organisational and indivi-dual surveys'):

- *the restructuring of the global value chain*: analysing global division of work and networking; analysing drivers of change;
- *changes in work organisation*: analysing new forms of work organisation, division of work and changes in workplace design;
- *flexibility*: analysing the use of different forms of flexibility;
- *skills and internal labour markets*: analysing the impact on the internal labour markets, in particular skills acquisition and policies;
- *career trajectories and the quality of working life*: analysing impact on career trajectories and occupational identities.

The results of this inventory and classification of publications can be accessed through the website of the WORKS research project (www.worksproject.be: 'Quantitative analysis'). The inventory is the basis for this literature study. It describes and explains the extent of organisational change in European based on results of existing data with a focus on the research issues of the project.

This literature review provides input for the thematic analysis in the next steps of the WORKS research project. It allows to complement and to cross-fertilise with the research findings of the qualitative data collection of Workpackage 10 and 11 (organisational and occupational case study research) and thereby gives an input into the thematical analysis aimed for in the next project period, integrating them with the results of the qualitative empirical phases;

To select the most important surveys among the many organisation surveys carried out in European countries, the following criteria were used:

- *content*: the organisation survey must cover a broad range of topics that are related to work organisation and restructuring;
- *scope*: the organisation survey must cover a wide range of sectors, preferably organisations in the whole economy;
- *periodicity*: the organisation survey must be carried several times over the years with the same or a similar questionnaire. This includes both surveys which aim to provide periodic cross-sectional measurements and panel studies

In Table 1.1, we present the 12 organisation surveys selected on this basis. An abbreviation is given for each survey, which will be used further in this literature review. A more detailed description of these surveys is included in the Annex of this literature review, enabling readers to put the results offered by the survey into the right perspective.

Table 1.1 Organisation surveys included in the literature review

Acronym	Full name	Countries covered
PASO	Panel Survey of Organisations	Belgium
DISKO	Danish Innovation System – Comparative Analysis	Denmark
COI	Changements Organisationnels et l'Informatisation	France
REPONSE	Relations Professionnelles et Négociations Entreprises	France
IAB	Institut für Arbeits- und Berufsforschung	Germany
ISI	New Production Concepts in Germany	Germany
OSA	Organisatie voor Strategisch Arbeidsmarktonderzoek	Netherlands
WERS	Workplace Employee Relations Survey	United Kingdom
CIS	Community Innovation Survey	Europe
CVTS	Continuing Vocational Training Survey	Europe
ESWT	European Survey on Working time and Work-Life balance	Europe
Eurostat-ICT	Survey on ICT Usage and e-Commerce in Enterprises	Europe

Taking into account the wide variety in the methodology of these surveys and therefore the difficulties involved in comparing their results, the report does not present figures from individual countries. As a consequence only secondary analysis on national organisation survey data is included here. Primary analysis with comparative figures between countries will only be presented from European-wide surveys.

The structure of this report follows the list of the five key issues for the WORKS research project: the restructuring of the global value chain; changes in work organisation; flexibility; skills and internal labour markets; career trajectories and the quality of working life. Organisation surveys are, however, not to the same extent the ideal source for information on these issues. For some issues, employee surveys or administrative data can also contribute relevant information. Especially with regard to restructuring of the global value chain, organisation surveys provide little information. This is due to the fact that organisations (companies, establishments, workplaces, …) are taken as the observation unit in organisation surveys instead of networks or value chains, making it difficult to analyse changes in the value chain. In view of the limited contribution of organisation

surveys on this issue, this literature review is restricted to the other four key issues mentioned.

2 Changes in work organisation

2.1 Introduction

Work organisation is a core topic in organisation surveys. The available administrative data tells us little about the organisation of work in companies. Employee surveys from their part provide mainly information on the results of work organisation in terms of working conditions for employees.

'Work organisation' is a broad concept covering a variety of organisational practices. On the one hand the concept refers to choices made within organisations regarding the division of labour. This concerns aspects as the structure of the production process, the relationship between staff and production departments, the responsibilities at different hierarchical levels, ... up to the design of individual jobs. On the other hand the concept refers to the choices made within organisations regarding their human resources management. This concerns aspects as recruitment and selection policy, policies on training, pay, promotion, ... up to the nature of industrial relations.

Literature suggests that work organisation in many companies is undergoing profound changes. The reasons advanced for the necessity of such changes refer to the environment of organisations. Evolutions in the product market, the labour market and technology are most often cited as drivers for changes in work organisation (European Commission, 1997):

- *the product market:* an increasing number of organisations are confronted with a saturated and fragmented market. Growing competition, further increased by globalisation and economic deregulation, leads to a consumer dominated market. In this market, the ability to react swiftly to individual consumer needs is crucial. This means that organisations must be able to guarantee quality, to react flexibly to changing market requirements and to innovate in order to exploit new market niches. It also implies that that they have to dispose of a work organisation that allows them to meet these new performance criteria. A work organisation aimed at mass production of standardised products or services is then no longer effective;
- *technology*: advancing automation leads to a new relationship between employee and machine. Human tasks are increasingly aimed at the support of an automated production in the autonomous execution of its steering competences. This leads to another relationship between employees and management. Confronted with such tasks, the traditional standards for the control of labour, aimed at specialisation and standardisation, are no longer effective. Instead, autonomy, integration and communication come to the forefront in an automated environment. In addition the application of ICT's facilitates

horizontal communication and the disposal of information to lower levels in the organisation;
- *the labour market*: organisations do not structure their work organisation is a social void. They must also find the employees and be able to keep them in order to perform the jobs as designed by the organisation. To the extent in which the execution of standardised and fragmented tasks no longer meets to increasing qualifications and aspirations of employees, problems in the deployment of employees can hamper the effectiveness of the organisation. Changes in work organisation are then appropriate to reduce recruitment problems, turnover and absenteeism.

In short, there is no lack of incentives for organisations to change their work organisation, from what is described in general terms as a 'traditional work organisation' to 'new work of work organisation'. This implies a shift from fragmented and standardised jobs to more autonomous group work and a shift from a bureaucratic personnel management to an emphasis on involvement of employees through strengthening of the internal labour market.

Organisation surveys provide first of all some evidence on the extent to which such a shift from a traditional to new forms of work organisation is actually taking place. Inevitably, how new forms of work organisation are concretised in the analysis depends on the variables included in the specific survey dataset. A non-exhaustive list of indicators would include practices as teamwork, job rotation, decentralisation of decision-making, a shift from task specialisation to task diversification, integration of functions, a reduction in the number of hierarchical levels, the replacement of vertical by horizontal communication channels, the introduction of quality circles or employee problem-solving groups, the application of interdisciplinary work groups, and management concepts as Total Quality Management (TQM).

Much of the more elaborate secondary analysis on the survey data regarding this issue can be grouped around three themes, although many also touch upon several or all issues together. These major themes are: the relationship between technological and organisational change; the impact of these changes on required skills and qualifications of employees and the importance of bundles of new organisational practices on performance:
- *the relationship between technological and organisational change* (Section 2.3): over the last decades ICT's have become widely diffused and used in the production of goods and services. These studies focus on the impact of the implementation of ICT's on choices made regarding work organisation;
- *skill-biased technological and organisational change* (Section 2.4): the introduction of ICT's creates new requirements on knowledge and skills for employees. This may lead to upskilling or downskilling for different groups of employees, but also to growing importance of other skills, such as 'generic' or 'soft' skills;
- *bundles of organisational practices and their impact on performance* (Section 2.5): new organisational practices are introduced to enhance performance. Many studies aim at establishing complementarities between these practices. This would mean that the application of several new organisational practices simultaneously and in particular combinations of these increase performance beyond what individual practices achieve in isolation.

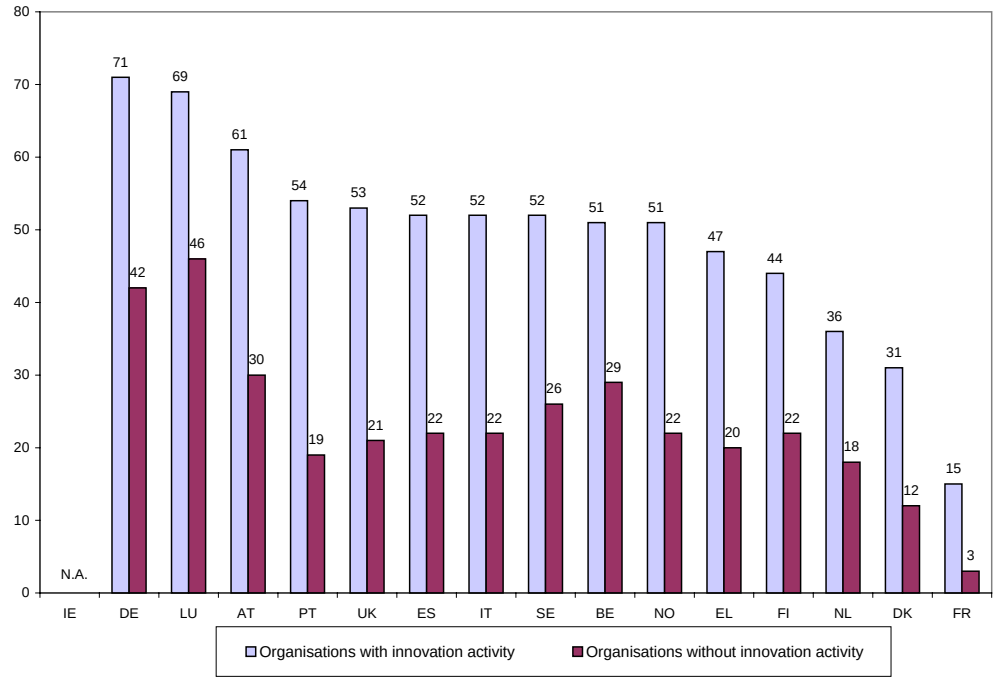
2.2 Incidence of a new work organisation

Unfortunately there are currently no European-wide organisation surveys that can determine to what extent a change in work organisation is taking place in European countries. The last attempt was undertaken over a decade ago by the European Foundation for the Improvement of Living and Working Conditions by means of the EPOC-survey (Employee direct Participation in Organisational Change, European Foundation (1998)).

2.2.1 CIS

A very limited and general comparative view on organisational change in European countries may be drawn from the CIS. As a consequence of the growing realisation[1] that product and process innovation often require organisational innovations in order to be effective, some general questions on organisational change have been introduced in the CIS questionnaire. These questions deal with changes in strategy, management, organisation, marketing and finally in aesthetic changes. Figure 2.1 presents the results on the issue of organisational changes, to be understood as the implementation of new or significant changes in organisational structures during the period 1998-2000.

Figure 2.1 Organisations that have implemented new or significantly changed organisational structures according to innovation activity



Source: European Commission (2004), own tabulation

1 See e.g. the 32nd CEIES Seminar 'Innovation indicators – more than technology', 5-6 february 2007, Aarhus, Denmark (http://circa.europa.eu/Public/irc/dsis/ceies/library?l=/ceies_seminars_31/indicators_technology&vm=detailed&sb=Title).

The figure shows very high country differences in the level of organisational change. The figure also shows that organisations with innovation activity were more likely to engage in organisational change than organisations without innovation activity and this for each country for which data are available. As such, organisations with innovation activity are usually twice as likely as those without innovation activity to make organisational changes. This could support the view that the complexity of the innovation process is such that the introduction of new products or the implementation of new processes is also likely to lead to organisational change and vice-versa (European Commission, 2004).

For a more detailed view on changes in work organisation, we are confined to national organisation surveys resulting in figures that are difficult to compare in view of their diverging methodology. No specific figures will therefore be presented, but as a general evaluation it is striking that studies going beyond measuring the mere incidence of broad labels in organisations as 'teamwork', 'new management practices', 'decentralisation', etc. paint a sobering picture.

2.2.2 PASO

The study of Delarue et al. (2003, 2004) based on PASO, confirms that teamwork is applied in most organisations. However, if one looks further to the real content of this teamwork, enthusiasm quickly drops. Although for a large part of organisations that apply teamwork, teams are able to take care themselves of a large part of their own preparation and support, only in a minority of cases team members themselves are involved in this support and preparation. In most organisations with teamwork, this task is attributed to the team leader. Real self-directing teams with a broad task package remains very much a curiosity.

Results show that the organisation remains very much the boss, also within a delegation model. The team leader guarantees this. He is fixed, does not work together with team members and is assigned by management. This dominant team type of teams with limited autonomy and a fixed team leader conforms to what is labelled in literature as 'lean' teams.

But the analysis also confirms a number of important determinants and implications of teamwork and the kind of teamwork applied for personnel management and for organisational performance. Organisations with teamwork are typically young organisations and they are mainly in health care, education, financial services or the metal and electronic sectors. It concerns mainly organisations with a knowledge intensive character, in which complex work prevails and who are confronted with high client specificity and important fluctuations in demand.

While the literature usually discusses teamwork in relation to industrial work, the survey shows that the quaternary sector is front runner in the application of teamwork. A separate analysis of the quaternary sector (De Prins et al., 2004) shows that organisations in education and personal care increasingly experiment with new forms of work organisation. This may cause less euphoria than in factories where blue-collar workers have more to gain in terms of autonomy than (semi-)professionals who have already a considerable autonomy. Yet in self-directing teams, semi-professionals can develop a broader professionalism, including social skills, which are less dependent on professional knowledge. This allows anticipating better on custom-made demands. If organisations need to

meet an increasing demand for made-to-measure and when clients have the choice between several suppliers of services, a level of self-directing and Cupertino is essential to remain competitive.

Looking for determinants of teamwork, the importance of contact specifity is striking. Working with people or customers is - more than working with technology or information - a breeding ground for the development and implementation of teamwork. Organisations with intensive client contacts are often limited in their efficiency due to the uncertainty that customers can introduce in the production/service process. The diversity and unpredictability of the wishes and behaviour of customers implies that often the necessary working time of employees can not be defined. The survey results suggest that an innovative organisation concept to deal with these circumstances pays off.

2.2.3 WERS

A similar sobering picture emerges from the WERS (Kersley, 2006). Much of the recent interest on work organisation has been focused on arrangements that are intended to encourage more collaborative and flexible approach to work tasks. The most commonly cited include team working, functional flexibility and the use of problem-solving groups. There has been much discussion about the potential for such practices to enhance employees' sense of involvement in their work, and thus to contribute to improved workplace performance. However, the existing evidence suggests that the take-up of such practices among employers has been far from universal.

As such teamwork among core employees is present in a majority of organisations. But when specific requirements are attached to the description, this figure quickly drops. Such requirements include the responsibility of teams for specific products or services, team members being depended on each other's work to be able to do their job, rotation of tasks among members of the team; team members jointly deciding how work is to be done and finally team members being able to appoint their own team leaders. Organisations sharing all characteristics of teamwork remain a curiosity. In addition, the incidence of team working, multi-skilling and involvement in problem solving groups or suggestion schemes has hardly changed since the previous wave of WERS in 1998. Similarly regarding personnel management, the extent of delegation of people management away from personnel departments to line managers and supervisors has continued to be rather limited and mainly restricted to issues such as recruitment (Kersley et al., 2006)

The authors conclude that the diffusion of new forms of work organisation has been rather muted in recent years, as is evident from the stability in the incidence of practices as team working, multi-skilling or problem-solving groups (Kersley et al., 2006).

2.2.4 REPONSE

Coutrot (2000) applies a cluster analysis to a wide number of variables from the REPONSE survey on the division of labour and personnel management in order to determine what kind of work organisation model is emerging in France.

Much of the literature suggests that due to competitive pressures from globalisation, organisations increasingly turn away from Fordist recipes and make their management methods more flexible, enlarge operatives' responsibilities, invest in training and in par-

ticipative devices. Productivity would no longer be obtained through intensification of repetitive tasks and heavy automation, but rather through the mobilisation of the intelligence and competence of polyvalent and flexible operatives. Analysis of the survey data should help to determine whether this represent real tendencies in French organisations.

Despite the above speculations, most employees still fall into the cluster of the 'traditional' organisation, characterised by a rigid work organisation with a low degree of autonomy and a workforce subjected to systematic and permanent control.

The most globalised and competitive French organisations are more oriented towards a centralised lean-production model. This combines an innovative management and work organisation with systematic work prescription and controls. The autonomy granted to employees in order to mobilise their individual and collective intelligence and creativity is controlled by management not only through the operation of strict working rules, controls and incentive remuneration packages, but also through the threat of mass unemployment. On the other hand, sociotechnical innovations, like autonomous groups, appear much more rarely.

As a possible cause, the author points to the introduction of corporate governance under the pressure of globalised financial markets that allows less and less space for idiosyncratic compromise between capital and labour and has disruptive effects on national industrial relations systems. The French case nevertheless has its specificities with a strong anti-union mood of firms' economic strategies. French managers more systematically implement labour - capital substitution and outsourcing strategies when social uncertainty is high in order to reduce risks and to weaken the potentially disruptive capacity for collective action of work communities within the workplace.

2.3 ICT's and organisational change

Over the last decades ICT's have become widely diffused and used in the production of goods and services. This is bound to have an impact on work organisation in companies. The capacity of ICT's for integrating all information flows within and beyond organisational boundaries, the steering and monitoring capacities of production flows and workflows, the growth of ICT-enabled services *etc.* can have a considerable impact on the way that production is organised at the level of and between organisations. These characteristics make ICT technology an 'organisational technology', because of its integrative nature and because of its impact on knowledge and communication structures (Ramioul, 2006).

But the relationship between ICT's and work organisation should not be seen as merely deterministic, as if a specific technological infrastructure highly determines the tasks to be done and the specific division of labour that is necessary to make the technology work. As the introduction of ICT's often did not lead to improved performance, the realisation grew that technology alone is not enough and its efficient utilisation depends upon innovations in the social context. The introduction of ICT's therefore needs to go along with organisational change in a complementary way. In this perspective ICT's do not determine work organisation in a deterministic but the choices regarding the introduction of ICT's must be co-ordinated with choices in work organisation.

2.3.1 COI

The COI has its focus on the relationship between the introduction and use of ICT's and changes in work organisation. The survey results show that intensity of use of new organisational practices is positively correlated to the intensity of communication between workers and technicians (Greenan et al., 2006). Organisations that make intensively use of new organisational practices - or develop such practices - have workers and technicians who participate in networks of information exchange and mutual co-operation.

The intensity of ICT-use as well as the application of new organisational practices is significantly associated with the intensity of communication between workers. Both seem to reinforce one another in their effects on communication. An intensive use of ICT's in the organisation goes hand in hand with strong exchanges between colleagues.

The survey results therefore confirm the existence of a complementarity between the use of new organisational practices and ICT's. Both reinforce horizontal interdependencies in the work of employees, interdependencies linked to the sharing of information on the one hand and to the execution of the tasks themselves on the other hand. The communication between workers and technicians is more intense in contexts where new organisational practices and ICT's get diffused. This is manifested in group work, information exchange, mutual co-operation, reunions, ... that all reflect a new form of rationalisation and use of qualifications in the process of production that implicates more deeply the employees at different levels.

However the development of a more intensive communication seems not to be a permanent effect, but rather a direct and necessary consequence of the adjustment and coordination costs linked to the implementation of the changes as such. The heightened communication is tightly linked to the context of change itself and stabilises or even reverses to a previous level when the change itself is slowed down or stopped.

2.3.2 DISKO

Joergensen (1998) explores the relationship between organisational change and information technology in Danish manufacturing and service companies. Results show that the introduction of information technology is related to organisational change. The jobs are more characterised by functional flexibility, delegation of responsibility and based upon co-operation and communication in internal and external networks.

Joergensen concludes that Danish companies apparently have learned the lesson from the mid-eighties when there was a negative impact of the introduction of information technology in Danish manufacturing. Now, a clear majority of companies which have introduced information technology have not merely thought in terms of technology but have also changed their organisation. Information technology apparently comprises powerful technical systems that, when faced, pushes companies towards organisational change. It seems like information technology poses new questions and demands that companies have to respond upon.

2.4 Skill-biased technological and organisational changes

In the past two decades, most advanced industrialised countries have witnessed an increase in the relative demand for skilled labour. The economic literature focuses on two main phenomena to explain these developments: increased trade with developing countries and skill-biased technological change (Bauer et al., 2004). More recent literature suggests that changes in the organisational structure of firms might be another important determinant of the observed labour market developments. Even though the dissemination of new forms of work organisation varies between countries, industries, and firms, the observed reorganisation process appears to be of quantitative importance in almost all industrialised economies.

New forms of work organisation are aimed at improving the adaptability to changing and new market circumstances. Measures to achieve this are a decentralisation of decision power and responsibilities and the introduction of teamwork. The ballast of borders and demarcations in the organisation are removed in order to better apply the potential of employees. Employees not longer need qualifications to perform a fragmented and standardised task, but are required to have a view on and knowledge of the wider process in which they are involved. Employees must be able to take on different tasks and responsibilities in co-ordination with other departments. In such interactions, initiative, creativity and social competences are getting more important (Alda et al., 2002). These are all arguments to consider technological and organisational change as skill-biased. A wide range of studies based on organisation survey data in different European countries have investigated the skill-biased nature of organisational as well as technological change.

2.4.1 REPONSE and WERS

The skill bias of organisational change is investigated by Caroli et al. (1999). The study stands out as the analysis is not restricted to one survey, but includes the British WERS and the French REPONSE. Relationships found in the analysis of one dataset can therefore be confirmed by the other survey. In addition the analysis includes data from several waves of the surveys, which allows following the impact of past incidents of organisational change on future employment and skill structures.

From the British WERS data it emerges clearly that organisational change is associated with a significant shake-out of the least skilled group – unskilled manual workers. Across all specifications there is a negative effect of past organisational change on the change in the wage bill share of unskilled manual workers. If the data are controlled for technical change, evidence is found for skill-biased technical change. The introduction of computers has very positive effects on the most skilled group (managers and technicians) and is associated with a fall in the proportion of unskilled manual workers. If an extensive list of organisational level controls is introduced including financial performance, ownership and demand variables, these effects of organisational change remain robust.

French results corroborate these of the UK, despite having a different sample, referring to another period and with a different measure of organisational change. A similar significant and negative effect of organisational change was found on the change in the employment share of unskilled manual employees as in the UK.

Although the introduction of organisational changes in the late eighties was associated with a substantial growth in value added, less skill intensive organisations were by contrast significantly less likely to benefit from organisational change.

The results of this study can be summarised as follows (Caroli et al., 1999):

- British and French organisations which introduced organisational change are significantly more likely to reduce their demand for unskilled workers than those who do not;
- the probability of introducing changes in organisation is depressed by shortages of skilled workers as proxied by educational wage differentials;
- the introduction of organisational change in skill intensive firms leads to significantly faster productivity growth than the introduction of organisational change in unskilled firms.

Taken together these findings do suggest that the notion of 'skill biased organisational change' makes sense. Organisational change, technology and human capital are complementary assets of the modern organisation. The widespread introduction of new organisational forms may be an important factor in the declining demand for less skilled workers in the OECD countries.

2.4.2 COI

In an analysis of COI data, Walkowiak (2006) points to a technological and organisational bias favourable to qualified employees. But although both technological and organisational changes imply a transformation of the structure of qualifications favourable to qualified employees, they are associated to very different renewal trajectories of employees. Indeed, technological change implies a stabilisation of the workforce through a slowing down of the rhythm of job destruction. Organisational changes however, imply a real renewal of the workforce through an increase in the rhythm of creation of jobs and recruitments. This effect reinforces over time because the acceleration of the level of job creation associated with organisational change is stronger at the moment of the diffusion of new organisational practices. While ICT's have a stabilising effect on employment flows, the introduction of new organisational practices is associated with a renewal of employees.

The modernisation of organisations therefore seems to be to the benefit of employees because when it is organisational, it favourises the creation of employment and when it is technological it increases job security. But although modernisation has beneficial effects on employment, it is not egalitarian as it is favourable to the employment of more qualified employees.

Despite the skill-biased nature of technological changes, Zamora (2006) does not find a relationship between organisations adopting technological change and the amount of training they provide. At the very most this effect is weak and only at short term. The training seems to be temporary, just the time to familiarise oneself with the new procedures put into place. By contrast the increase in training following an organisational innovation is persistent over long time and progressive. Organisational innovations seem to result in an increase of the required competences for employees. The author concludes that qualifications are complementary to organisational innovation and that organisational change is more skill-biased than technological change.

Behaghel (2006) further investigates the relationship between technological and organisational changes and the incidence of firm-provided training, by introducing the age of employees. The hypothesis is tested that older workers suffer from a comparative disadvantage with regard to training and this effect increases in times of change.

The results are compatible with the hypothesis of a complementarity between continued training and use of ICT's and new organisational practices, on the condition to specify what type of training is complementary to which practice. Use of ICT's goes together with more training in informatics, while use of new organisational practices goes together with more training in the principle task itself for employees.

However, the likelihood to be trained in informatics diminishes significantly among employees of more than 50 years when ICT's are used in the organisation. This is compatible with the idea that technological change penalises specifically the less qualified older employees. The reason may be that the training in complex informatics is not profitable if older employees do not dispose of sufficiently updated knowledge. The hypothesis of a comparative disadvantage of senior employees with regard to change can therefore be limited to technological rather than organisational change.

2.4.3 OSA

The skill-biased effects of ICT's are further supported by analysis of OSA data. The OSA is a long running panel survey, allowing for a longitudinal analysis over many years. Borghans et al. (2003, 2006) analyse the OSA panel data from 1988 to 2000 to investigate the relationship between adoption of ICT, the observed changes in organisational structure and the increasing demand for higher educated workers.

The authors interpret the actual division of labour in organisations as an optimal trade-off between the benefits of specialisation and the costs of communication. As computer technology can both improve communication and production, the adoption of this technology is able to change the division of labour in two directions. When communication costs are decreased there will be a tendency towards more specialisation and when production time is decreased there will be more generalisation. The net effect of both possibilities will determine the direction of the division of labour in organisations.

The panel survey data are in line with the case where computer technology increases productivity, so the benefits of specialisation and the division of labour have diminished. Computer adoption in Dutch organisations during the 1990s is therefore generally associated with a change towards a more generic organisational structure. This is revealed by less diversity in the types of workers employed, a smaller fraction of indirect workers and a lower standard deviation of wages. A decrease in team size can also reflect a more generic structure. But the rise in the number of hierarchical layers suggests that these firms substitute the increased workload related to communication with a more hierarchical structure.

These results are partly in contrast with the interpretations concerning organisational changes in the literature on new forms of work organisation. This literature argues that computerising firms can further improve their productivity by emphasising team work and co-operation. The analysed OSA data suggest that computerisation decreases the time needed for production tasks and increases communication time. The organisational changes that result are an attempt by the firm to reduce this increasing load of communi-

cation time. Therefore, while theories on new forms of work organisation would predict a delaying of the organisational structure, the positive relationship between the introduction of computer equipment and hierarchical layers is consistent with an increase in the workload related to communication. Faced with an increasing burden of communication, organisations try to reduce co-ordination costs by increasing the number of hierarchies.

The results show that Dutch firms that invested in ICT have increased the number of higher educated workers they employ. Since the changes in organisational structure are mainly towards generalisation, it is more likely that the skill bias in labour demand has to be found in relation with reduced production time. Hence simple tasks have been automated or skilled workers gain more from reduced production time. This increase in the share of skilled workers together with the increase in the relative number of direct employees suggests downsizing at the expense of lower skilled workers.

2.4.4 IAB

The skill-biased nature of organisational and technological change is also the central theme in a number of studies on IAB data. Using an employer-employee matched panel data set for Germany, Bauer et al. (2004) analyse the employment effects resulting from the introduction of new information technologies and new organisational practices. It is investigated whether technological and organisational changes are skill-biased and whether these changes involve different patterns of job creation and destruction for different skill groups.

The empirical results show that the indicators for technological change do not show a significant effect on gross job and worker flows. If anything, new information technologies seem to increase churning rates among skilled workers, professionals and engineers. On the other hand, organisational change is skill-biased because it first and foremost reduces net employment growth rates of unskilled and medium-skilled workers via higher job destruction and separation rates, whereas the employment patterns of skilled workers are not affected significantly.

There is some support for the argument that organisations upgrade the skills of their incumbent workers when changing the organisational structure. However, compared to the external employment adjustments resulting from organisational change, these internal adjustment effects are negligible. Most of the employment adjustment patterns associated with organisational change are therefore external.

A similar picture emerges from the analysis of Alda et al. (2002). With almost all kinds of organisational change measured in the survey, an increase in the qualification level of the organisation can be seen. But organisational changes do not lead to an employment reduction, as has often been the case in the production departments of organisations during the eighties. In that period organisations and employees were often confronted with rationalisation waves aimed primarily at the elimination of standardised productions tasks. Since the nineties the focus has shifted to the introduction of ICT's entailing new qualification profiles that are not compatible with a traditional work organisation. But this does not have a quantitative effect on employment as the analysis shows both organisations with an increase just as organisations with a decrease in employment. The increase in the qualification level in organisations can therefore be attributed to the dis-

missal of low qualified employees and recruitment of more qualified employees (so-called churning) without much change in the employment as a whole.

2.4.5 DISKO

Lund et al. (1996) show that with increasing flexibility - understood as the capacity of the organisation to respond with new products and technology to a changing environment - also the demands increase on new recruits regarding both vocational and social qualifications. The most flexible firms stress the need for employees' ability in terms of readjustment, responsibility and quality consciousness as well as co-operation and communication. These findings reflect increasing demands on soft labour qualifications among firms which are characterised by flexible forms of organisation. These differences in the demand for labour qualifications between firms reflect real differences in work content. Among the more flexible firms, routine work has decreased and intra-organisational co-operation increased in far more instances than among the less flexible firms.

2.5 Bundles of new organisational practices and performance

Increasingly the analysis turns towards the research of complementarities between new organisational practices, instead of the mere relationship between a single practice and the performance of organisations. Complementarity implies that doing more of one thing increases the returns to doing (more of) the others. Therefore applying several new organisational practices simultaneously and in particular combinations, increase effectiveness beyond what individual practices achieve in isolation.

In order to be effective, the introduction of teamwork, for example, may require more than redesigning jobs towards job enlargement and job enrichment, but also require changes in the hierarchy of the organisation, in the relationship between production and staff departments, in the structure of the production process itself, *etc.* In addition, the organisation may also need to change its personnel management. In order to perform in a teamwork setting, other qualifications can be required in recruitment and selection of employees. An adaptation of training programmes may be useful in order to support employees in their teamwork. Promotion policies may be oriented more towards radial instead of vertical promotion. Wage policies need to be adapted in order to reflect the emphasis on the group instead of individual performance...

To put it in a general way, a shift towards a division of work eliciting the involvement of employees will be successful if it is supported by a policy to strengthen the internal labour market thereby increasing employees' time horizon and encouraging their investment in skills.

The specific relationship of organisational practices with performance depends on the performance measures available in the survey. Studies apply measures of labour productivity, (growth in) employment or value added and indicators for quality, flexibility and especially innovation.

2.5.1 ISI

The link between work organisation and performance is frequently addressed in the studies on ISI data, although this survey is restricted to the investment good sector. Lay et al. (1999) report that organisations that have introduced elements of new organisational practices are more efficient than other manufactures in terms of productivity and performance. This holds true for a very wide variety of industries in the investment goods sector and is also independent of the size of the company. The introduction of new forms of work organisation should therefore be regarded as a serious alternative for manufactures whose critical income situation makes the relocation of their production to low-wage countries appear as the only remaining alternative.

Lay (1999) reports that the performance and the pace of new product development in the investment goods sector is related to the use of new forms of work organisation. For most types of manufacturers, the use new organisational practices like simultaneous engineering, CAD, or inter-departmental work teams, speeds up the product development process. In addition, there is a shortening in the time required to bring new products to market. With the help of new forms of work organisation, German companies can therefore compensate for the high cost of domestic manufacturing by emphasising competitive factors other than the product price. New forms of work organisation can help enterprises to improve their innovation capacity and to venture into market sectors that are not dominated by cost competition alone and which sectors provide new possibilities for growth.

In its effect on employment, results are less clear. As Lay (1997) asserts, the simple hypothesis that the increased use of new forms of work organisation will lead to more employment is not confirmed. Whether the introduction of new organisational practices results in positive or negative employment outcomes is linked to the strategic orientation with which the concepts are realised: a cost oriented strategy versus a performance or quality improvement strategy. Positive impacts on employment are more often found in organisations implementing new forms of work organisation in a strategy oriented towards improving performance.

2.5.2 DISKO

Many of the studies on DISKO data are dealing with the issue of complementarity between organisational practices. Nielsen et al. (2003) analyse survey data in order to establish the positive effect of new forms of work organisation on innovation and more specifically the complementary effect of different new organisational practices. New and improved products and services on the market have come to stay an important clue to success in the 'new economy'. This innovation capacity depends on the ability of the human resources continuously to learn and develop knowledge as a collective resource in the organisation. Nielsen therefore researches which organisational building blocks may establish optimal frames of human interaction, aiming at knowledge creation, knowledge communication and materialisation of knowledge as product or service innovations on the market.

Results show that organisations combining several new organisational practices are much more prone to introduce new products than others. The effect is strong also when differences among firms in terms of size, sector and ownership are taken into account. It

cannot be shown that there is a simple causality from new organisational practices to innovation. Rather the relationship goes both ways. Firms operating in market segments where continuous incremental product innovation is a prerequisite for survival and firms pursuing strategies of continuous product innovation will realise that they need new forms of work organisation. They will need it in order to organise the different sources of knowledge required for the innovation and they will need it in order to cope with the unforeseen problems they encounter as part of the innovation process.

The author therefore concludes that as more sectors become exposed to the need to engage in incremental product and service innovation, the economic potential of diffusing good practices in terms of organisation is growing and needs to be reflected in firm strategies and public policies aiming at promoting innovation and knowledge creation.

In a subsequent study, Nielsen (2003) confirms that organisations incorporating a multitude of new organisational practices have a much higher chance of being product or service innovative. But the study also looks at the importance of employee involvement and participation in organisational change. This includes indirect participation, referring to participation through local union representatives and institutions, and direct involvement, mainly through communicative and co-operative relations between management and employees.

It has been argued, that traditional indirect participation forms are in decline, especially in relation to a new work organisation. The empirical analysis indicates clearly, that the direct involvement forms are commonly used in organisational changes, and the indirect participation forms are under pressure. But this not a situation of 'either or', because the analysis also shows that the more co-operation instruments are applied in the organisation, the higher the chance of applying new organisational practices. This is evidence of the importance of co-operation in many forms and by many channels when work organisation is changed.

Kristensen (1997), however, warns against a too simplified relationship between new organisational practices and performance, at least measured in terms of labour productivity. There is no such thing as a single 'best organisational practice'. Organisational practices must be adapted to their environment in order to be effective. Therefore in different environments, different organisational practices can be suited.

By means of regression analyses, the author shows that organisations with new forms of work organisation are best performers in some parts of the economy, characterised by innovation turbulence and cumulativeness, but are not best performers in general. Nevertheless, in light of the view that markets will be increasingly affected by the ongoing globalisation and an increasing competition, the results found here, may indicate that in the future new forms of work organisation may become the general organisational model.

The same concern is present in the study of Laursen (2001) who goes beyond the analysis of mere complementarities between new organisational practices and introduces the type of activity of the organisation. Mostly, the analysis has focussed on identifying organisational practices and complementarities between such practices, invariant to the type of activity in question. But as the author remarks, while it might be obvious that, for example, an electronics firm will benefit from the application of some organisational practices, it is not equally obvious that a smaller construction firm will gain equally from applying such practices. The analysis therefore engages in a more detailed unfolding of sectoral regularities in the effect of organisational practice complementarities on innovation

performance across the economy. The emphasis of the study is on the impact on innovation performance, in particular, on product innovation.

The author sees at least three types of reasons why a new work organisation can be conducive to innovative activity:

- the application of new forms of work organisation may increase the level of decentralisation, and such an environment may better allow for the discovery and utilisation of local knowledge in the organisation;
- team practices, involving job-rotation are likely to provide co-ordination advantages in the sense that engineers (or 'workers') perform several tasks and therefore understand the technological problems of colleagues better;
- teams often bring together knowledge and skills which - prior to the introduction of teams - existed separately, potentially resulting in incremental process and product improvements.

While there may be complementary organisational practices, the effectiveness of their application will be different across sectors of economic activity. Laursen (2001) expects their effectiveness being greatest in knowledge-intensive organisations. Such organisations are confronted with a high rate of technological change and should benefit from a flexible, decentralised and integrated organisational structure. In addition new organisational practices can better assist in creating and utilising local knowledge, and this is of more importance to knowledge-intensive organisations.

The results from the empirical analysis show that the variables related to new organisational practices were found to affect innovation performance positively. Concerning individual practices, some effect was detected, in particular for teamwork practices. However, when all of the new organisational practices were combined into one single variable, the effect was found to be much stronger. New organisational practices are therefore more effective in influencing innovation performance when applied together, rather than when applied alone. But the application of complementary organisational practices is more effective in more knowledge-intensive sectors as compared to less knowledge-intensive sectors.

This confirms the above-mentioned study of Caroli et al. (1999) (Section 2.4) reporting an association between the introduction of organisational changes and a subsequent substantial growth in value added. Less skill intensive organisations were significantly less likely to benefit from organisational change.

2.5.3 REPONSE and WERS

As in the study of Caroli et al. (1999), Lorenz et al. (2003) perform a similar analysis both on the French REPONSE and the British WERS data. Their focus is also on complementarities between organisational practices, but they specifically include employment representation in their analyses. They argue that formal systems of employee representation can increase employees' confidence that disputes around the design or operation of the pay and promotion system will be resolved in a way that respects their interests. Representation can also increase employee confidence that implicit guarantees around employment security will be respected. The objective of the study is therefore to test for the

presence of performance enhancing complementarities between systems of employee representation and new organisational practices.

Performance in the study is understood the capacity to innovate new products and services, because the new organisational practices are especially supportive of innovation. Practices as team organisation, job rotation, quality circles, and shop or service meetings can positively contribute to interdepartmental information flows and feedbacks which are critical to the firm's capacity for technological innovation. These practices can be mobilised in order to provide a framework within which employees' can articulate and make more explicit tacit knowledge that subsequently may be integrated into the process of new product design and development.

The results for both the UK and France can be seen as providing support for the thesis that complementarities between new organisational practices count for innovative performance. Moreover, they point to differences in the form taken by these complementarities. In the UK case, the study finds strong support for the view that systems of employee representation are not only complementary to new organisational practices, but also are a precondition for realising the benefits associated with the use of these practices. This supports the view that the benefits in terms of innovation from bundling new organisational practices will not be realised in the absence of employee representation. The results for France, while making it clear that employee representation does not constitute a serious obstacle to realising the gains from using new organisational practices, provides support for the view that complementarities can be realised independently of the existence of some system of employee representation. Unlike the UK case, there is no evidence to suggest that in France employee representation is a precondition for reaping these system benefits.

Lorenz et al. (2003) suggest that the more decisive role played by employee representation in the UK is linked to the UK's relatively deregulated labour market setting, characterised by a low level of legislative protection and a very limited capacity on the part of employers for collective co-ordination around wages and skill provision. In such an institutionally impoverished setting, the willingness of employers to engage representatives in discussions and negotiations around working conditions and manpower planning issues can play a crucial role in eliciting from employees the forms of commitment and cooperation that are central to strategies of incremental innovation. Therefore, in the deregulated UK context, characterised by the absence of any legal requirement to representation, the willingness of employers to consult or negotiate carries significance in terms of a serious commitment to employee involvement in decision making that it cannot have in highly regulated French context.

2.5.4 WERS

Using a cross section of British organisations, Devaro (2006) estimates a structural model of teams, autonomy and financial performance. The study identifies empirically the effect of team production on financial performance in a large cross section of organisations and whether and how this effect depends on the degree of autonomy or control granted to team members.

The results confirm that team production is a good bet for enhancing organisational performance. The median organisation in a large cross section enjoys a considerable in-

crease in the probability of higher financial performance by using team production. In addition, there are only few organisations with a detrimental effect of teams on financial performance, suggesting that the upside from team production is larger than the downside.

However, contrary to the hypothesis that self-managed or autonomous teams are preferable to closely managed teams, the evidence suggests that non-autonomous teams are no worse, regardless of the autonomy measure considered. In fact while the median organisation benefits from using non-autonomous teams, the corresponding effect for autonomous teams is statistically insignificant. The results must not be interpreted as evidence that autonomous team production is worse than non-autonomous team production, but rather that it is clearly no better.

The result highlights the dangers of making a case for teams in general or self-managed teams in particular. The effects of team production reveal a great diversity in the cross-section, ranging from large negative to large positive effects. Depending on the production context teams can be beneficial, detrimental or neutral.

Nevertheless, the evidence suggests that the best description of the typical or median organisation is one in which team production has a positive effect with autonomy doing nothing to enhance the positive effect on financial performance.

Pérotin et al. (2000) introduce the additional factor of equal opportunities practices to the relationship between new forms of work organisation and productivity. Results from the analysis show that the joint existence of new organisational practices and equal opportunity schemes is generally associated with a productivity advantage over and above the separate effects of the two types of policy. The complementarity between new organisational and equal opportunities practices operates primarily through the joint impact on discriminated groups. Because new organisational practices is meant to foster employees' active involvement, its effectiveness may be severely restricted in the presence of discrimination, improving as female and ethnic minority employees are provided with increased access to opportunities and incentives to participate. It is also possible that equal opportunities policies are better designed and more effective in a participatory environment.

The author concludes that the debate on employee participation and its synergies with other elements of complementary firm policies has largely taken place without a consideration of the role of discrimination and equal opportunities practices, which may be critical in determining the extent of many employees' participation under a given scheme.

Forth et al. (2004) draw attention to the fact that much of the research on new forms of work organisation has been concerned with establishing a link to economic performance, but far less attention is given to an assessment of the link to outcomes of concern to employees. Since for most employees pay is the nexus of the employment relationship, it is only natural when considering different forms of work organisation, to enquire as to how employees' pay s affected. Their study investigates the financial benefits of new forms of work organisation for employees.

The analysis finds that employees in organisations with new organisational practices were paid an average premium of around 8 *per cent* over otherwise comparable employees in organisations with a more traditional approach. Investigation of the choice of supporting practices shows that job security guarantees were the critical support for organisational practices to lead to greater rewards.

In as much as the provision of job security increases the likelihood that new organisational practices yield performance improvements, this result suggests that the wage premium from new organisational practices may represent the employees' share of an additional employer surplus.

Finally, investigating the role of unions in establishing the pay premium associated with new organisational practices, the study founds that the premium from these practices is higher where unions are involved in effective pay bargaining. One implication is that the pay premium currently associated with new forms of work organisation in Britain may decline in the future if union power continues to wane.

3 Flexibility

3.1 Introduction

The need for more flexibility is a key notion in the current policy debate on the present and future of the European economy and labour market. Labour market flexibility enables organisations to adjust to changing external conditions. A wide variety of measures are available to increase their ability to respond, e.g. temporary contracts, overtime, irregular working times, ...

On the other hand, flexibility is not just in the interest of organisations. Employees also increasingly want more flexible arrangements as flexi-time, part-time work and various leave schemes. The ability to respond to these demands for personal preferences will support the inclusion of more people into employment and retaining them there.

Both the organisational interests and the employees' needs enhance the use of flexible working arrangements. Many data on labour market flexibility are available for researchers, from administrative data as well as employee surveys. Indeed, there are even long-standing international employee surveys providing comparable data on the issue for the European countries of which the European Labour Force Survey is a principal example.

Yet organisation surveys can add an additional perspective on the issue of flexibility. This perspective is useful as employees usually cannot decide autonomously about their working time or contract type. They are embedded in the organisational structure of the company they are employed at. The organisation of working times depends on the specific needs of the organisations - e.g. variations of the workload, opening hours or the availability of adequate staff on the labour market - but is also influenced by labour law, collective agreements and cultural factors in each country. Within this framework, the flexibility policy at organisational level defines the possibilities and limits of the employees to adapt their actual working hours to their personal needs and wishes. Therefore the perspectives of the responsible decision makers at organisational level are an important supplement to the views of the employees for the analysis of working time policy and practice (European Foundation, 2006).

The recent Establishment Survey on Working Time and Work-Life Balance is one of the very few cross-national surveys tackling these topics from the perspective of organisations. The survey deals with a variety of flexibility indicators with comparable results for European countries. These indicators include part-time work, irregular working hours, flexible working hours, overtime, parental leave, long leave arrangements, early and phased retirement, work-life balance facilities. What these arrangements have in common is that they all deviate in one way or the other from the standard model of a full-time Monday morning to Friday afternoon working week with regard to the number, the distribution or the position of the working hours (European Foundation, 2006).

This literature review will therefore rely to a large extent on the results of this European organisation survey as published in the reports of the European Foundation (2006, 2007a, 2007b, 2007c, 2007d, 2007e, 2007f). Topics that relate more specifically to work-life balance are addressed in Chapter 5 of this literature review. Flexibility instruments presented in this chapter are:

- flexible working time arrangements (Chapter 3.2);
- overtime (Section 3.3);
- unusual working hours (Section 3.4);
- part-time work (Section 3.5);
- temporary work (Section 3.6);
- overall assessment of flexibility measures applied by organisations, their determinants and effects (Section 3.7).

3.2 Flexible working time arrangements

3.2.1 ESWT

Flexible working time arrangements cover a broad range of initiatives (European Foundation, 2006). Among these, the lowest degree of flexibility is offered by schemes which only allow the start/finish time to be varied on the same day, without the possibility to accumulate credit or debit hours. In this scheme, only the time of the beginning or the end of the working is flexible, but not the number of hours actually worked per day. This type of flexibility is practiced by 16% of all organisations surveyed.

Other schemes allow the accumulation of credit or debit hours within certain limits over a longer period of time (e.g. a week or a month), but do not allow credit hours to be compensated by full days off. This means that longer working hours on one day can be compensated only by working fewer hours on other days. 7% of all organisations offer this to at least some of their employees.

In more advanced flexi-time schemes employees are permitted to take full days off as compensation for accumulated credit hours. Such schemes are practiced in 12% of all organisations.

Finally, the highest degree of flexibility with regard to the compensation of hours is offered by schemes which allow credit hours to be compensated by longer periods off – often with the whole year (or even more) as reference period within which the time account has to be settled. Such schemes are often referred to as 'working time accounts' or 'annualised working hours'. They exist in 13% of the organisations under investigation.

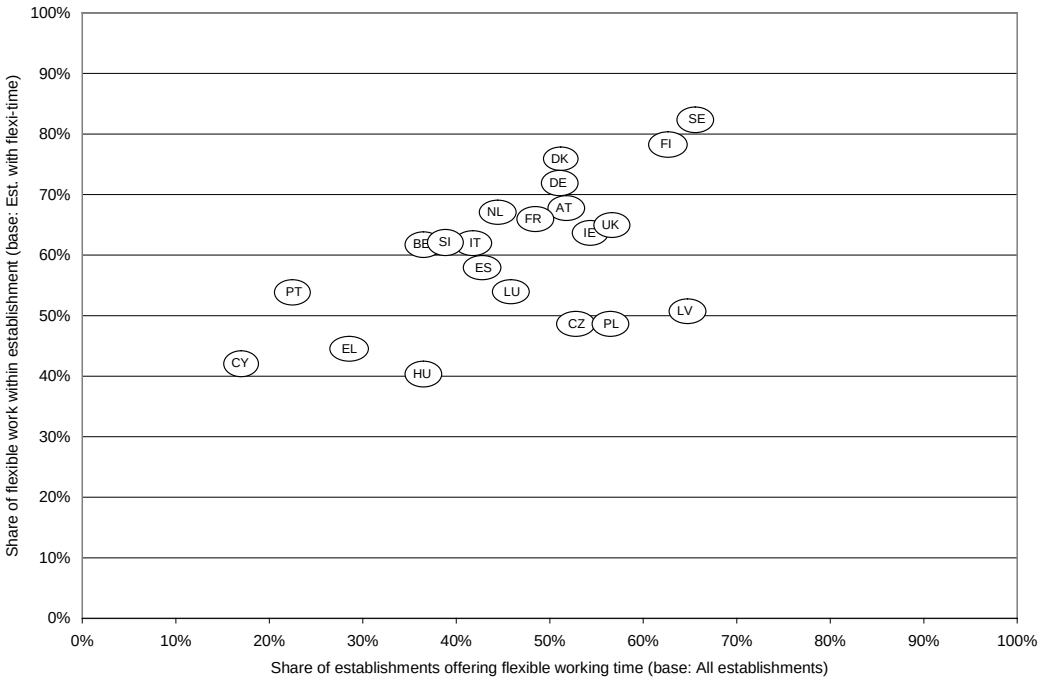
Adding up, 48% of the personnel managers in organisations with 10 or more employees reported the existence of any form of flexible working time arrangement allowing the adaptation of working hours to personal wishes for at least a part of their workforce.

There are significant differences in the overall incidence of flexible working time arrangements practiced in the 21 countries covered by the survey. While in Cyprus, Portugal and Greece less than every third organisation has any such flexibility with regard to working hours, about two thirds of all establishments in Sweden, Latvia and Finland do so. Apart from these two groups of countries at the extreme ends, the share of organisations with any of these forms of flexible working hours is relatively even, with a large set of countries in the range between 40% and 55%.

The degree of flexibility offered by the working time systems also varies considerably from country to country. In the Scandinavian countries, Germany and Austria the existence of a flexible system of working times mostly also implies the existence of some kind of working time account, i.e. the possibility to accumulate hours and to take time off as compensation later on. In contrast, in Southern European countries in less than half of the organisations offering any possibility to adapt the start and end of daily work according to personal needs, it is possible to accumulate hours for a later compensation.

The figures mentioned thus far refer to the incidence of working time arrangements at the organisation level and not the take-up rate at the level of the individual workers. However, countries where the share of organisations with experience in flexible working times is low also tend to have comparatively smaller shares of employees entitled to make use of this flexibility within those firms which in principle practice that working time arrangement. This is the case for Greece, Cyprus, Hungary and - albeit to a smaller extent - also for Portugal. In Finland and Sweden, on the other hand, the high incidence of organisations with experience in variations of the daily working time clearly coincides with large proportions of entitled employees in those firms where flexibility is offered (Figure 3.1).

Figure 3.1 Share of firms with flexible working time arrangements and average share of employees entitled to make use of the flexile working times, by country



Source: European Foundation, 2006: 7

Further analysis (European Foundation, 2006) shows that these differences between countries show up relatively independently from factors like size-class or economic activity. This indicates that the policy and practice of flexible working-time arrangement is largely influenced by the different national institutional frameworks and by nation-

specific cultural factors. While organisational constraints and economic necessities also determine the use or non-use of certain working time regimes, these results suggest that the use of flexible working time arrangements is not so much the result of the necessities inherent to the production process, but rather depends on country-specific cultures in work organisation and the will of the responsible decision makers, as well as the expressed demand from part of the employees, to organise work in that way.

In general there is a broad consensus between the social partners that the introduction of flexible working times has had mainly positive effects. Both managers and employee representatives name a higher job satisfaction most frequently as an outcome of the introduction of flexible working time, followed by a better adaptation of the working hours to the workloads. And among both groups of respondents only a quite small minority perceives any negative effects. Furthermore the more flexibility the applied working time arrangement allows, the more positive the evaluation of the outcomes tends to be.

In a separate analysis (European Foundation, 2007e) the role of employee representatives is considered. More specifically whether the nature of industrial relations has any impact on working time arrangements at the organisation level, especially those arrangements giving employees a certain amount of discretion over their working hours.

A country comparison shows that workers have more discretion in countries in which employee representations have a comparatively strong influence on working-time organisation, compared to countries with only limited influence of employee representations. It can be derived from the analyses that worker oriented types of flexibility measures are more spread among countries with strong employee representatives influence.

Looking at the influence exerted by the quality of the relationship between management and employee representatives, as perceived by the latter, the differences are even more pronounced. The incidence of discretion-friendly arrangements is consistently higher in organisations whose employee representatives report a co-operative, rather than strained, relationship with management.

While neither the system of employee representation nor the actual quality of co-operation between management and employee representatives are the ultimately decisive determinants in predicting the incidence of working time arrangements relevant for the work-life balance of employees, both are important and significant factors. Amongst these two factors, the role of employee representation within a national system of industrial relations appears to be a better predictor than the actual quality of the relationship between management and employee representatives at establishment level.

3.3 Overtime work

3.3.1 ESWT

The analysis over the ESWT also includes overtime work (European Foundation, 2006) as an important topic on the political agenda with regard to labour market issues (e.g. reduction of overtime hours in a situation of high unemployment), health and safety at work (avoidance of extraordinarily long working hours) and work-life balance.

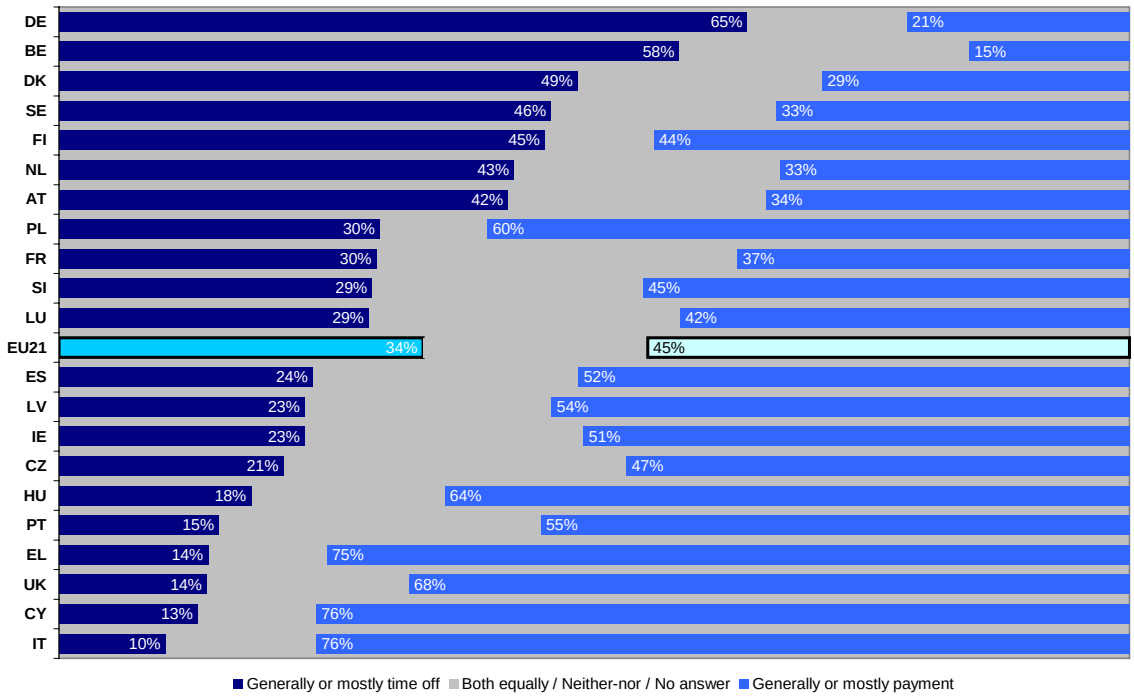
From surveys among individuals it is known that a majority of employees prefer to get their overtime hours compensated with time off rather than with money. However,

throughout the analysed European countries, the most common form of compensation for overtime hours is still of financial nature:[2]

- in 34% of organisations that report having overtime hours, money is the general form of compensation;
- 23% report compensation by time off as a general rule;
- in another 39% of organisations, the relative importance of both forms of compensation is approximately even.

Considerable differences between countries exist, however, with regard to the compensation of overtime hours with either money or time off. While in the Mediterranean and Anglo-Saxon countries as well as in the new EU member states covered by the survey a compensation by money is still the prevailing form, in Scandinavia and many of the Western European EU-15 states a compensation by time off has become the more common way of dealing with worked overtime hours at establishment level (Figure 3.2).

Figure 3.2 Compensation of overtime work by country



Source: European Foundation, 2006: 15

2 In view of the increasing difficulties to define overtime, the ESWT questionnaire deliberately refrained from trying to use a general definition of overtime. In the corresponding questions the term 'overtime' was used and it was left to the respondent to answer the questions with regard to what the actual meaning of this term was in his or her establishment.

3.3.2 IAB

Schank et al. (2004) show in an econometric analysis of company determinants of overtime that overtime is used as an instrument for temporary adaptations in demand fluctuations. Existence and extent of overtime depends positively on turnover and the use of temporary workers varies parallel to the number of overtime hours. Besides overtime, trainees serve as flexibilisation buffer, as companies with a large share of trainees rely less on overtime. By contrast, a relationship between the normal working time of companies and the use of overtime could not be established.

The study also shows that not many hopes must be put on a labour market policy aiming to reduce overtime hours. Two thirds of private organisations operate without any overtime hours, the other apply it as a flexibilisation instrument and only a small share use overtime work permanently. The author therefore suggest that in order to reduce overtime work, working time accounts with longer time frames are a better option.

3.4 Unusual hours

3.4.1 ESWT

In the analysis of the ESWT (European Foundation, 2006, 2007d) only night work from 10 p.m. to 6 a.m., work on Saturdays and work on Sundays were taken into account which as 'unusual hours'. All three types of unusual hours can be regarded as potentially problematic with regard to the work-life balance.

Among the surveyed organisations, in total 42% have employees on their payroll who regularly have to work at 'unusual hours' (European Foundation, 2006):

- the most common atypical working time is work on Saturdays which occurs in 38% of the organisations;
- there is also a remarkable share of 24% of organisations with people having to work on Sundays;
- 19% of organisations have employees regularly working at night, i.e. between 10 p.m. and 6 a.m.;
- in 58% of all organisations covered by the survey none of these work-forms occurs on a regular basis.

Looking at the problems faced by organisations with regular use of non-standard working hours, the report (European Foundation, 2007d) provides sound evidence of personnel problems. As reported by managers, organisations that require at least 20% of their staff to work at unusual and changing hours are confronted with more difficulties than organisations without unusual working hours. These difficulties relate to sickness, absenteeism and motivational problems, as well as to staff turnover. In addition, early retirement is a feature of many organisations operating at unusual and changing hours. In view of the challenge of an ageing workforce, this approach may become unsustainable in the future.

Given the multifaceted patterns of unusual working hours across countries and sectors, it is useful to draw a picture of the overall significance of unusual hours. This is done by

means of an index based on the accumulated rankings of each country for each of the three forms of unusual work hours (European Foundation, 2007d).

When pulling together these findings, it is possible to distinguish several groups of countries in which organisations are most likely to operate at non-standard hours (Table 3.1). The UK stands out for having a particularly high share of establishments that report the regular deployment of at least 20% of staff at unusual working hours. At the far end of the scale, three southern European countries – Portugal, Spain and Greece – show particularly low shares of organisations requiring their employees to work regularly at unusual hours. In between, there is a group of countries with above-average shares of organisations indicating working time arrangements in each of the three forms of unusual working hours. These include Sweden, France, Finland and Germany. At the lower end of the scale, the Netherlands, Hungary and Italy show below-average scores in each of the three forms of unusual working hours (European Foundation, 2007d).

With regard to sectors, two services sectors record a remarkably high incidence of unusual working hours, namely the hotels and restaurants sector, and the health and social work sector. Sectors such as utilities, other social and personal services, and transport are also very prominent in that regard. In contrast, managers of organisations in sectors such as financial intermediation, construction and education report the least overall shares in regularly deploying staff at unusual hours.

Table 3.1 Ranking of unusual working hours (required from at least 20% of employees) within EU21

Country	Night work	Saturday work	Sunday work	Index
UK	1	1	1	3
SE	3	7	2	12
FR	4	3	8	15
FI	5	8	3	16
DE	7	5	5	17
CZ	2	13	10	25
LU	10	6	11	27
CY	16	2	9	27
DK	8	14	6	28
LV	15	9	4	28
IE	18	4	7	29
AT	11	11	12	34
BE	13	10	13	36
SI	9	15	14	38
PL	6	19	17	42
IT	14	12	16	42
HU	12	17	18	47
NL	17	18	15	50
EL	21	16	20	57
ES	19	20	19	58
PT	20	21	21	62

Source: European Foundation, 2007d: 19

Beyond the ranking of countries and sectors, the report (European Foundation, 2007d) also investigates whether unusual working hours are determined by distinct sector char-

acteristics or rather by national regulations, customs and practices. Based on a series of multiple logistic regression analyses, the characteristics of the sector prove to be of prime importance rather than the country. This finding comes as no surprise since particular industries and services require specific working time organisations, either for competitive or for social reasons. Also, because individual industries and services are unequally distributed across countries, it should be obvious that sector characteristics impact first on working time practices, including work at non-standard hours, across countries. However, as soon as possible interactions between country and sector are taken into account, it becomes apparent that country-specific characteristics such as work regulations and work culture can affect working time organisation in individual sectors. Thus, the interaction between country and sector proves to be the single most important explanation for differences in the incidence of unusual working hours. While sector-specific demands come first with regard to the presence of unusual working hours in organisations, but to what extent this occurs depends on country characteristics.

3.5 Part-time work

3.5.1 ESWT

Part-time work is one of the most widely known 'atypical' working time arrangements in Europe with an increasing share of part-time workers over the past decade. In principle, part-time work offers a good opportunity to combine paid work with other activities outside work. But the compatibility of a part-time job with life outside work heavily depends on the shape of the part-time working regime. The financial conditions, social protection benefits, career prospects, the distribution of working hours among the day or week and many other factors largely determine whether the part-time work offered in an organisation is really an attractive or even viable alternative to the standard full-time work.

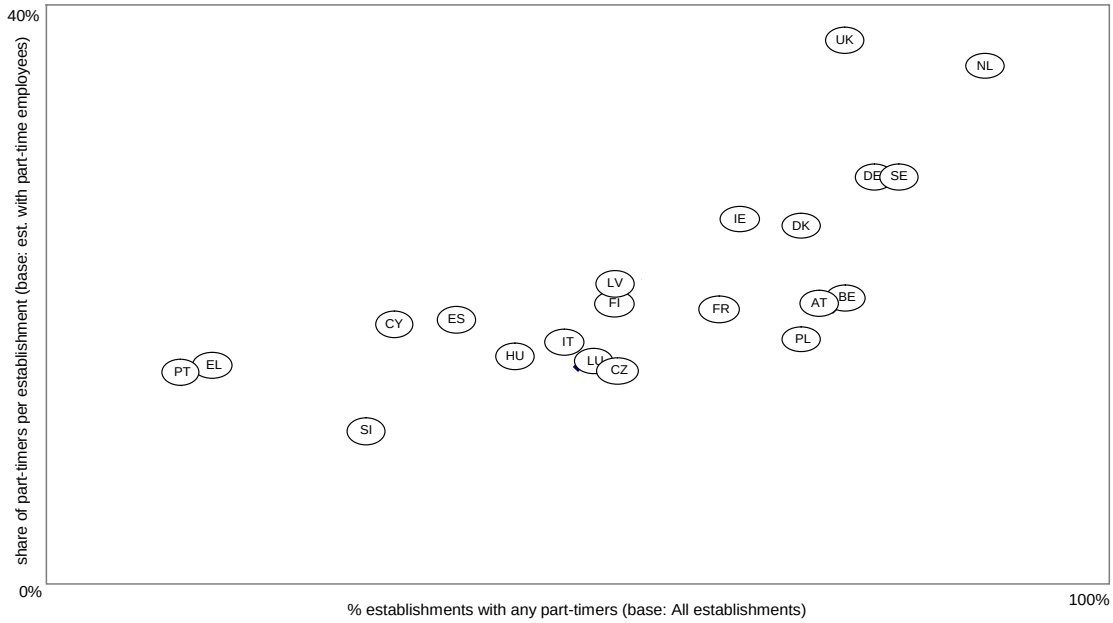
The incidence of part-time employment largely differs from country to country (European Foundation, 2006):

- in the Scandinavian, Western European and Anglo-Saxon countries experience with part-time work is very widespread with almost three quarters of the organisations practising this work-form;
- in contrast, part-time experience at organisation level is still much less common in most Mediterranean countries, with on average roughly 40% of the organisations there employing any part-timers;
- part-time experiences of the five new EU members from Central Europe included in the survey are somewhere between these two poles, with on average about 60% of organisations practising that work-form.

Countries where many organisations make use of part-time work also tend to have a larger share of the workforce working part-time (Figure 3.3). In a remarkably large minority of 5% of all organisations with part-timers, this specific group of employees accounts for 80% or even more of the active workforce and is thus by far the most common working time arrangement in these organisations. Such organisations are especially to be

found in Germany, Latvia, Sweden, Denmark and - most frequently - the Netherlands and the United Kingdom.

Figure 3.3 Country typology by incidence of part-time work at organisation level and the share of part-timers per organisation.



Source: European Foundation, 2006: 21

Beyond this country effect, there are also marked variations across organisations in the incidence of part-time work. This is also the case when the country effect and differences in various other characteristics are taken into account by using multivariate statistical techniques. Organisations with a high rate of part-time employment are concentrated in the following sectors: health and social work, education, other community social and personal services, hotels and restaurants (European Foundation, 2007c).

The most frequent way of organising part-time work in organisations is still the 'classical' form of part-time with some fixed hours every day (European Foundation, 2006):

- in 69% of all organisations employing part-time workers, part-time work is with fixed hours every day;[3]
- 38% of the organisations offer other fixed patterns of part-time work, e.g. the possibility to work full-time on some days of the week or month and to take other days completely off;
- in 27% of the organisations part-time work is rather called in by the employer whenever there is the need of (additional) workforce.

3 Multiple response are possible, therefore data add up to over 100%.

While in the Western-European and Scandinavian countries the organisation of part-time work in 'other fixed cycles' is an option offered in many organisations either in addition to other forms or even as the only form, in the Mediterranean and in most Central European countries such more innovative forms of part-time are practised in relatively few organisations only. Among the Western-European and the Scandinavian countries there are even two - the Netherlands and Finland - where 'other fixed cycles' of part-time work are more widespread than the classical form of some fixed hours per day. On he other hand, especially in Anglo-Saxon countries a considerable share of part-time workers do not have this stability of planning and is rather called in by the employer whenever there is the need of (additional) workforce (European Foundation, 2006).

A particularly interesting group with regard to the topic of work-life balance are fathers working part-time. If there are fathers among the part-timers in an organisation, this can be interpreted as an indicator that the general climate in the organisation (e.g. the climate between colleagues or between intermediate superiors and the people under their control) is relatively open with regard to gender roles. 21% of the organisations with part-time work count fathers among their part-time staff. The presence of fathers among the part-time workforce in organisations is more frequently found in Belgian, Dutch, Swedish and British organisations. In turn, only very few organisations in Italy, Portugal, the Czech Republic and Slovenia count fathers among their part-time staff (European Foundation, 2006).

Further analysis of the conditions under which part-time takes place in organisations, reveals that a considerable part of the offered part-time employments have certain problematic features: career prospects tend to be worse than for full-timers and possibilities to change between full-time and part-time jobs within an organisation are far from being self-evident. Part-time employees are often concentrated in lower-level occupations and can face disadvantages compared with their full-time counterparts. Only 61% of managers in organisations with experience of part-time work report that part-time employees have the same promotion prospects as full-time workers. 27% admit that prospects for career advancement among part-time workers are worse. Employee representatives are even more negative in their assessment of promotions: only 49% of employee representatives consider that equal promotion prospects exist and 40% of them report inferior career prospects (European Foundation, 2007c).

This may explain why part-time work is only rarely indicated by employee representatives as desirable to improve work-life balance (Chapter 5). If general framework conditions of part-time work improve, part-time work could be a more interesting option for many employees.

3.6 Temporary work

3.6.1 IAB

Pfeifer (2005) examines what forms and instruments organisations use to react flexibly to demand-induced output fluctuations, and, if they are used in a complementary or substitutable way, e.g. between functional and numerical flexibility. Moreover, the determinants of temporary employment (fixed-term contracts and temporary agency work) and the impact of these flexible employment forms on job security and job stability of regular

employment are analysed. According to dual labour market theory, temporary employment can be interpreted as a firm's peripheral workforce, while regular employment is the core workforce. The core-periphery hypothesis implies that the regular employees gain a higher degree of job security due to the use of a flexible workforce, since temporary employment is used as a 'buffer', which is adjusted to demand fluctuations.

Empirical evidence shows that within the given flexibility forms, the utilisation of instruments is rather complementary. Complementary relations can be explained by increasing marginal costs and decreasing marginal revenues, which make it cost efficient to use more than one form and instrument to accomplish flexibility.

The determinants of temporary employment give some support for dual labour market theory since these employment types are more likely to be used and to be more intense in the case of positive demand shocks. But neither fixed-term contracts nor temporary agency work raise job security and job stability for regular employment. Therefore, the core-periphery hypothesis cannot be supported in the empirical analysis.

Promberger (2005) analyses work conditions for temporary work in German organisations. Its diffusion is still modest, yet on a slight rise, because of regulations that yield limitations on employment opportunities. The study finds that income differences with and without temporary work are serious. Beyond the income issue, the findings show that in temporary work precarious moments converge: high levels of unstable employment conditions, low qualification and further training opportunities, and limited participation possibilities. The author concludes that apparently with temporary work a balance between company flexibilisation and individual security interests is not yet obtained.

Bellmann (2004a) examines the role of temporary work as a business personnel strategy, more specifically the relation between temporary work and other instruments of flexibility such as overtime working, working hour accounts, and fixed-term employment contracts.

The results show that only when the possibilities for the use of working time accounts, overtime hours and fixed-term employment are fully exploited, then the instrument of temporary work is used, because for the organisation these are cheaper forms of flexibilisation instruments. As long as this is the case, deregulation in this matter will have little effect.

Deeke (2005) deals with a related issue by investigating whether the use of shortened work by organisations attains its goal of stabilising employment. With the aid of shortened work subsidies, organisations can temporarily lower their wage expenses and shorten working times when a short-term dropout in demands occurs. The aim is the prevention of lay-offs, therefore of lay-off and re-hiring costs with alternative external flexibility. In labour market policy the shortened work subsidy is a valued instrument.

The analysis of employment development and fluctuation when comparing organisations with and without shortened work shows that the introduction of shortened work helps to prevent lay-offs and to support stability of employment. Shortened work is one of many ways for organisations to stimulate internal and external flexibility. Organisations with shortened work use a broad spectrum of adaptation instruments compared to organisations without shortened work in similar economic situations. Shortened work is not an alternative for the use of other instruments of company flexibility, but relates to other instruments of internal numeric and functional adaptation. However, the drop-out times resulting from shortened work are seldom used for a functional adaptation of the qualification of the shortened workers.

3.7 Overall flexibility: determinants and effects

3.7.1 ESWT

Combining the wide variety of flexibility indicators in the ESWT by means of latent class analysis, the European Foundation (2007f) distinguishes between six types of flexibility responses among organisations in Europe. This typology refers to the amount of flexibility as well as the kind of practices that are supported.

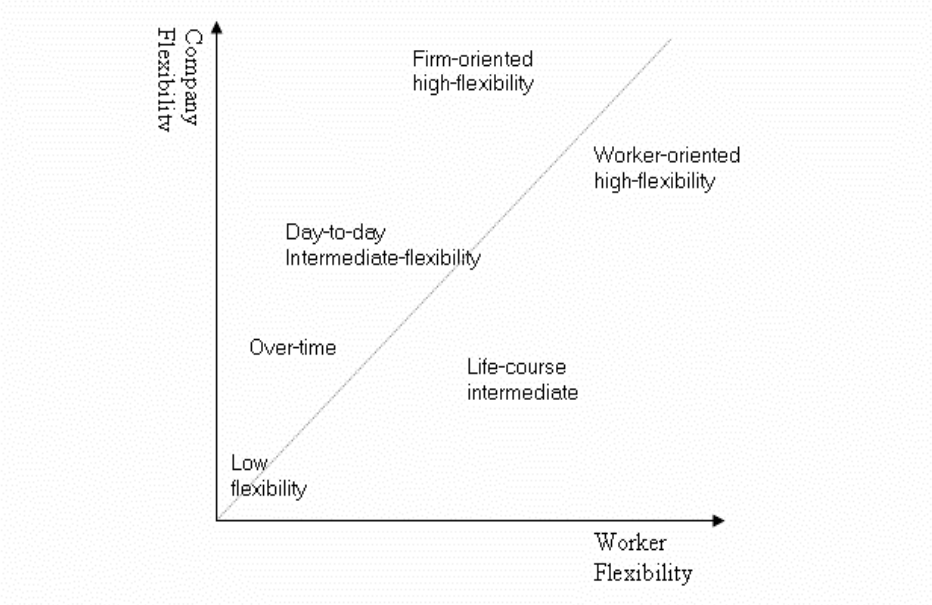
The first two types of organisations are characterised by a high degree of flexibility in their working time practices, covering parental leave and other long-term leave arrangements, part-time work and early and phased retirement. The first type, however, puts more weight on the needs and preferences of the employees, for instance by giving workers some control over the time at which their working day starts and ends. Instead of this, the second type of firm has flexible working time practices that serve the companies' operational needs and the preferences of its customers. Examples of these are irregular or unsocial working hours and overtime.

The next three types of organisations have only some of the flexible working time practices that were considered in the survey. The first of these three 'moderately flexible' types of firms supports a package of arrangements that accommodates workers' need for flexibility over the course of their working life; in the second of these types, working time flexibility mainly takes the form of part-time work, irregular working hours and flexible working hours. In the third type of moderately flexible companies the working time flexibility mainly consists of overtime.

The sixth and last type of organisation has none or hardly any of the flexible working time practices covered by the survey.

Summarising the study distinguishes two very flexible (albeit based on quite different needs), three moderately flexible and one low-flexibility type of organisations in Europe. An important property of this typology is that it not only reflects different amounts of flexibility, but also distinguishes between different types of flexibility. These types of profiles correspond to the different purposes for which flexibility may be adopted by a firm. Using this framework the report summarises the six organisation profiles regarding working time flexibility graphically as in Figure 3.4.

Figure 3.4 Extent and focus of working time flexibility



Source: European Foundation, 2007f

The clustering of working time flexibility practices and arrangements is presented and summarised in Table 3.2. Each of the flexibility profiles represents a considerable percentage of European organisations. These findings imply that in terms of flexibility practices, Europe is rather heterogeneous. It is not the case that one flexibility type dominates, or in other words that European firms tend to favour one form of flexibility in particular.

Table 3.2 Typology of working time flexibility, the six company profiles

	Working time flexibility profile					
	High		Intermediate			Low
	Worker-oriented	Firm-oriented	Life-course	Day-to-day	Overtime	
% of organisations	14	22	18	7	18	21
Part-time workers	++	++	+	++	– –	– –
Unusual working hours	–	++	–	++		– –
Flexible working hours	++	– –		++	–	– –
Overtime	++	+	–		++	– –
Parental leave	++	++	–	–	– –	– –
Long-term leave available	++	+	++	– –	– –	– –
Early retirement possible	+	+	++	– –	– –	– –
Measures to facilitate work-life balance	++	++	++	+	– –	– –
Workers on flexible contracts	+	++		– –	–	–

++ = 25% or more above the average; + = 10-25% or more above the average; – = 10-25% or more below the average; – – = 25% or more below the average.
Source: European Foundation, 2007f

The distribution of organisations over these six flexibility profiles differs considerably between the 21 countries in the ESWT survey. Taking into account the differences and similarities in the shares of the different types of organisations by using a hierarchical cluster analysis, the report compares the entire distribution of organisations over the six profiles (European Foundation, 2007f). The country differences can be summarised by the four country groups described in Table 3.3.

Table 3.3 Summary of country profiles

Group	Characteristics	Countries included
Nordic	High flexibility + worker oriented	Finland, Sweden
Central 1	High/intermediate flexibility + worker oriented	Denmark, The Netherlands, UK, Czech Republic, Latvia, Poland
Central 2	Low/intermediate flexibility + firm oriented	Germany, Austria, Ireland, France, Belgium, Luxembourg, Slovenia
South	Low flexibility + firm oriented	Italy, Spain, Portugal, Greece, Cyprus, Hungary

Source: European Foundation, 2007f

To determine what other characteristics are determinants of an organisation's flexibility profile, the report (European Foundation, 2007f) undertakes a multivariate analysis on how the membership probability of each of the six types of organisations is related to a range of organisation characteristics. This analysis shows that the country in which a firm is located, reflecting differences in legal, cultural and institutional surroundings, is the most important determinant. The second most important determinant is the size of the organisation, measured by the number of employees. The sector ranks third as determinant of the flexibility profile of a company. Table 3.4 summarises how the flexibility profiles are related to some firm characteristics.

Table 3.4 Typology of working time flexibility by determinants

Cluster	Sector	Size	Other
High flexibility			
Worker-oriented	Commercial Services, Government	50+ employees	Foreseeable variation of workload, more high-skilled
Firm-oriented	Health Services, Transportation	50+ employees	More low-skilled, more young employees
Intermediate flexibility			
Life course-oriented	Education	10-19 employees	
Day-to-day	Hotels and restaurants		
Overtime	Industry, Transportation	10-49 employees	Unforeseeable variation of workload, more males
Low flexibility	Construction, Industry	10-19 employees	Little variation of workload, less young employees

Source: European Foundation, 2007a

The report (European Foundation, 2007f) advances some reasons to explain the important role of the country as determinant of a firm's flexibility strategy. The differences between countries may reflect how institutional and cultural differences affect the ability of firms to respond to the various needs for working time flexibility. Another explanation of the differences between countries may be that institutional and cultural differences determine what needs for working time flexibility are left to the firm to answer. The observed differences between the flexibility strategies adopted by firms in different countries may therefore be affected by differences in the span of control of firms as well as by differences in the demands that firms face.

The study concludes (European Foundation, 2007f) that increasing flexibility is not necessarily a conflictual issue: the high-flexibility profiles, although labelled 'worker-oriented' and 'firm-oriented' share a range of flexible practices that serve both the employees' and the firm's needs. Moreover, countries that have a large share of high worker-flexibility firms also have a high share of firm-oriented high-flexibility firms.

3.7.2 PASO

Delarue et al. (2003) point out that a lot of legislative work has been done to enable organisations to 'breathe' according to their market. But a surprising share of organisations makes clear that they have no need for such measures. In the same direction points the result that 'doing nothing', that is not relying on the legal possibilities to reduce the workforce or their working hours, is the most 'popular' measure to deal with foreseen and unforeseen drops in demand. Temporary unemployment, although only possible for manual workers, remains the most applied measure in Flemish organisations to deal with a drop in demand. And also with respect to unforeseen rises in demand, temporal flexibility measures are mostly used. Overtime work, is the most applied measure in organisations of all size categories. If one is able to plan rises in demand, then organisations rely more on contractual flexibility measures.

The authors conclude that organisations meet their flexibility requirements mainly with their own employees. The 'flexible firm' model of Atkinson with a small nucleus of core employees surrounded by floating skins of employees in a supple relationship with the organisation, must therefore increasingly be referred to the realm of fiction.

Gryp et al. (2005) analyse the determinants of flexible work. Three domains that influence the kind of flexible work applied are treated: the environment, the organisation and the employees.

Environment: International competition, fluctuating product markets and higher customer requirements are the main causes given in the environment of organisations that cause organisations to use flexible work. Three variables were analysed to research the influence of the environment on the use of flexible work: the confrontation with market fluctuations, the level of competition on the market and the confrontation with vacancies that are difficult to fill. The first two variables provide a view on the product market of organisations, the latter on the external labour market of organisations.

Some flexibility instruments used by organisations are linked to a minimum manpower level strategy. 'Lean' organisations rely on contractual flexibility in case of increases in demand. A considerable share of Flemish organisations makes use of temporary work contracts or work from a temporary work agency. Temporary work agencies are mainly

used in a hire and fire strategy and are mainly used by organisations that are confronted with erratic markets. Temporary work is more used by organisations that are confronted with rather stable markets.

In case of a drop in demand, organisations relying on a minimum manpower level strategy, fall back on their small core of employees. Organisations with a medium or maximum manpower level strategy have to dismiss employees in case of a drop in demand. Those confronted with fierce competition will do so more often than organisations without strong competition. But being confronted with vacancies that are difficult to fill has no significant influence. The alternative to dismissal in the form of training of employees in case of a drop in demand is not applied, even not in organisations that report difficulties in filling vacancies.

Organisations that apply a maximum manpower level strategy rely much more on temporal flexibility instruments to deal with a drop in demand. A first instrument is temporary unemployment due to economic reasons. It is used by more than half of the organisations in case of a drop in demand. It allows them to put employees temporarily on unemployment, without ending the work contract. These employees therefore remain connected to the organisation, diminishing transaction costs in case of a retake in demand. A disadvantage of this system, however, is that organisations do not provide training to their employees while making use of temporary unemployment (see also Deeke (2005) in Chapter 3.6). In exchange for the social security contributions, the government could ask organisations to 'activate' this period by providing training.

Training of employees in case of a drop in demand is a second flexibility instrument that organisations can apply. Striking here is that organisations reporting difficulties in filling vacancies do not train employees more often in case of a drop in demand than organisations without vacancies that are difficult to fill. One may suppose that they would use quiet periods to train employees in qualifications that characterise difficult to fill vacancies. Possibly, such vacancies are on specific segments of the internal labour market for which training is not evident.

A third flexibility instrument is labour pools, which are used in case of an increase in demand. This allows organisations to mobilise employees quickly when demand increases. These employees dispose of (sector-) relevant qualifications and experience. In case of a drop in demand, organisations can refer these employees to the pool. Opportunities for pooling exist especially in organisations with several establishments. In the social-profit and government sectors many such organisations exist and pools have good changes to succeed. A good example is the replacement pools in schools.

Organisation: Many organisational characteristics influence the use of flexibility instruments. Two variables are highlighted: the size of the organisation and the type of organisation. Small organisations make significantly less use of flexible work compared to large organisations. Small organisations (1-9 employees) are confronted with a larger threshold for using flexible work. Yet they also have flexibility needs, which they meet more by using student work, instead of temporary work contracts or temporary agency work.

Regarding the type of organisation, the study refers first of all to the distinction between private companies, social-profit organisations and public organisations. Legal regulations are partly responsible for differences in the use of flexible work. Public organisations have to deal with restrictions in making use of temporary agency work. Dismissal protection is also much greater for employees in public organisations.

Secondly organisations with many simple jobs do not rely more on contractual flexibility compared to organisations with few simple jobs, in spite of the argument derived from transaction cost theory that contractual flexibility is best suited to minimise transaction costs in organisations with many simple jobs.

Thirdly, organisations aimed at product innovation instead of process innovation send their employees considerably less to formal training in case of a drop in demand. This can be explained by differences in learning opportunities in the job. Process innovation through small optimisations thrives better in organisations with a standardised production or service process. Such organisational structures however offer less learning opportunities. Additional training, e.g. when demand drops, is then needed to enable employees to learn. Organisations with an emphasis on product innovation require an organisational structure in which creativity flourishes, where employees can try out and learn. Here employees have more opportunities to learn in their job resulting in a lower need for additional formal training. This shows that organisations with few of no training do not deserve a bad report. A good organisational structure can contribute to the learning opportunities in the job diminishing the need for additional formal training.

Similarly organisations making use of teamwork have less need to rely on flexibility instruments. Employees in such organisations are more versatile, allowing the organisation to balance manpower in a better way. Organisations without teamwork have more employees performing a specific job, leading to the necessity to replace these in case of absence.

Employees: Not only with employers, but also with employees, the demand for flexibility rises. Not everyone wants a fixed job, but rather wants to achieve a good balance between work and private life, resulting in a great variety of wishes.

Looking at the internal labour market of organisations that make use of flexible work, clear differences appear. Organisations relying on temporary work agencies employ low educated employees, a majority of men, many migrants and blue-collar workers and offer few opportunities for part-time work. In organisations with much temporary work, the employees typically have the opposite characteristics. Differences in the internal labour market are also clear in organisations with and without shifts. Such differences have little to do with diverging aspiration of the employees, but rather with organisational characteristics.

The different situations in which people are working, leads to different opportunities to make use of flexibility measures (e.g. gliding working hours, child care, homework, part-time work, …). If flexibility aspirations from employees continue to grow, the danger emerges that only a small part of employees will be able to meet their aspirations. If the government aims to increase working years of people and delay retirement, a broadening of the target group for such flexibility measures is needed. Getting people to work longer in their life is not merely a matter of financial encouragement, but also a matter of facilitating the work life balance.

3.7.3 OSA

Kleinknecht et al. (2006) investigate the effects of different forms of flexibility on employment and productivity. The study is based on OSA data during the eighties and nineties, a

period when the Netherlands enjoyed high levels of job creation. The study provides empirical results in the discussion on the wisdom of a more flexible labour market.

Advocates of the flexibilisation of labour attribute high unemployment in many European countries to rigid labour markets. In their view, strong unemployment protection legislation, high social benefits for those out of work, rigid wages and strong trade unions prevent the labour market flexibly adapting to changes in demand and supply. They make a plea for easier hiring and firing of personnel, a reduction of trade union power, less generous social benefits, and more wage flexibility.

Opponents refer to this as 'low road' practices and argue that 'high road' organisational practices and co-operative labour relations are more promising for firm performance. For example, protection against dismissal may enhance productivity performance, as secure workers will be more willing to co-operate with management in the development of the production process and in disclosing their (tacit) knowledge for the firm. Moreover, high employment protection also makes it worthwhile for workers to invest in education and training, because it reduces the uncertainty associated with the future payoffs of such human capital investments.

The high job rates in the Netherlands during the eighties and nineties can to a large part be ascribed to modest wage increases, not to extra GDP growth. While GDP growth is similar to the EU average, GDP per working hour grew only at about half the European rate. As a consequence Dutch GDP growth has been highly labour-intensive. The job creation 'miracle' coincided with a decline in labour productivity growth.

The study shows that organisations that make greater use of internal flexibility realise significantly higher sales and employment growth, in spite of paying higher wages, especially in organisations that perform R&D. This confirms the hypothesis that functional flexibility is more beneficial to innovators. By handling internal (other than external or numerical) flexibility, innovators invest in trust and loyalty of their personnel, which is favourable for the accumulation of (tacit) knowledge and reduces the leaking of knowledge to competitors.

By contrast, organisations that have a high turnover of personnel do not realise significantly higher sales growth, and the same holds for organisations that employ high shares of personnel on truly temporary contracts (without a perspective of tenure). Advantages from lower wage costs seem to be lost on various forms of social capital: an increased turnover of workers with short-run commitments leads to diminished trust, loyalty and identification with the firm, creates 'hold-up' problems and leads to increased market failure owing to easier leaking of knowledge. Comparing the coefficients of the sales and employment equations, the study finds several indications that external flexibility is damaging to labour productivity growth.

In short: organisations in the Netherlands that rely more strongly on flexible labour relations, using many temporary contracts and having a high labour turnover, have not realised extra sales growth, in spite of substantial savings on wage costs. At the same time, the indications are that such firms will experience lower labour productivity growth, leading to higher employment growth.

Modest wage increases and flexibilisation of labour markets may therefore create lots of jobs. However, this is likely to happen at the expense of labour productivity growth, raising serious doubts about the long-run sustainability of a low-productivity - high-employment growth path.

3.7.4 OSA and IAB

Alda et al. (2005) investigate the relationship between labour market institutions and labour market flexibility. Important elements are the role of unions, works councils and wage bargaining regimes and employment protections regulations. In international comparisons Germany and the Netherlands are often located in the same category (the so-called Rhineland-model). Nevertheless, there are several differences in institutions between both countries.

Often the high level of unemployment in Germany is explained by a lack of flexibility, over-regulation in the labour market and disincentives of the social security system. However, these institutional effects are difficult to test by means of data from only one country. Cross-country comparisons are hindered by the availability of comparable datasets, especially at the organisation level.

In this study regressions are estimated - almost identically specified - using organisation datasets from Germany and the Netherlands. In contrast to individual data, information from organisation data allows analysing not only the process of hiring and firing, but also the extent to which hires and separations occur simultaneously. While the net flow of workers in organisations reflects more their economic situation, churning is often an instrument for readjusting the workforce. The study investigates to what extent the institutional framework with (national) specific regulations has its own influence on employer and employee decision making.

Although Germany and the Netherlands have more or less comparable labour market institutions, there are some differences that count. The results show that these differences are important factors in explaining differences in labour market flexibility. German organisations have significantly lower churning rates than their Dutch counterparts. To some extent this can be explained by a different economic situation and a different age-structure of the working population. At the end of nineties the German unemployment rate was relatively high, whereas the Netherlands can be characterised by low unemployment and a tight labour market. Regarding the age structure it is the higher share of older workers in Germany that contributes to a lower churning rate. But also labour market institutions exert some influence on churning, such as the German apprenticeship system, the German works councils and the share of fixed term contracts in total employment (higher in the Netherlands). In all cases these differences contribute to a lower German churning rate. The authors conclude that in general the position of 'insiders' receive stronger protection in Germany than in the Netherlands, which makes the German labour market less flexible.

3.7.5 REPONSE

Based on the fact that French firms have considerably increased precarious forms of employment while at the same time reforming their work organisation and implementing new technologies, Coutrot (2004) investigates the relationship between employment stability and innovation.

One view claims that stable employment supports organisational and technological innovation. In order to enhance innovation, knowledge and skills of employees need to be continuously mobilised. The workforce needs to be qualified and multi-skilled, with many of their qualifications being tacit and accumulated through work experience. To

support their involvement, personnel management is aimed at a strong internal labour market with great employment stability.

Another view stresses that the renewal of employees brings in new knowledge and skills in the organisation. A workforce with great seniority may be attached to old ways of working and resist necessary adaptations. In addition ICT's facilitate the codification of the knowledge of employees and therefore their translation into 'organisational knowledge' detached from specific individuals. In these conditions, there are fewer obstacles to combine external flexibility with a policy of organisational and technological innovation.

Coutrot (2004) performs an econometric analysis to study the relationships between organisational and technological innovation and employment stability. The results do not allow making a definitive judgement. Technological and organisational innovations go together with a stronger use of interim contracts and fixed term contracts. Organisational innovations also increase dismissals. These facts support the view of a compatibility between innovation and flexibility. But on the other hand technological innovation reduces layoffs and voluntary quits. The author therefore concludes that innovative organisations develop a dual management of personnel, where a significantly large reserve of temporary employees coexists with a rather stable permanent workforce.

Askenazy et al. (2004) explore the effects of new technologies and new organisational practices on labour flows of different professional categories in France. The empirical estimates suggest that, since ICT's are skill-requiring, its adoption results in higher turnover of intermediate professionals, employees and manual workers, who do not have these skills. At the same time, the turnover of these categories of workers falls when the establishment adopts a Tayloristic production system.

Because new forms of work organisation try to stimulate motivation, participation and productivity of blue-collar workers, its adoption is associated to higher labour flows of managers, whose relative productivity is negatively affected by these organisational practices.

Since ICT adoption is generally accompanied by changes in the internal organisation of firms, the authors conclude that the labour flows of all workers categories must have been stimulated over the last years, either through the implementation of ICT for blue-collar workers, either by new organisational practices for white-collar workers.

4 Skills and internal labour markets

4.1 Introduction

In order to become the most competitive and dynamic knowledge-based economy, an increase in the share of individuals participating in lifelong education and training is recommended. The emphasis on education and training is common to all advanced industrial societies, because of the widespread belief that the challenges posed by the rise of new low-cost producers can only be met if labour attains high levels of skill, in a continuous upskilling process.

Training is key to augment and adapt existing skills to the changes of technology. It is particularly important for senior workers, whose skills accumulated at school are likely to be substantially depreciated, and for the less educated, who run the risk of social exclusion.

Organisation surveys concentrate on workplace training while in employment, and is usually but not exclusively provided by the employer. This is an important area because company training covers a substantial part of education after labour market entry. Next to formal training in the form of courses and seminars, employees can renew and broaden their skills through informal learning during and while working on the job. Studies on the incidence and organisational determinants of workplace training based on organisation survey data are presented in Section 4.2. Comparable data on the issue for the European countries are available from the Continuing Vocational Training Survey (CVTS).

Greater participation in workplace training will increase the available skills of employees. But do these match the skills required to do the jobs in organisations? Technological change, globalisation and the growing importance of services are all mutually reinforcing drivers towards a knowledge economy. In Section 2.4 studies were reviewed on the skill-biased nature of technological and organisational change. Much of the survey evidence on the evolution of skill requirements has been presented there. But the other side of this evolution raises questions on the future for low qualified employees. This chapter looks at evidence from organisation surveys on the mismatch between required and available skills in organisations (Section 4.3).

4.2 Workplace training

4.2.1 CVTS

The second European continuing training survey provides comparable data on the forms, contents and scope of the continuing training, either within organisations or by means of

external continuing training providers. An overview of the efforts by organisations regarding continuing training can be achieved by combining the following variables in the survey:

- the proportion of organisations offering continuing training out of all organisations (training incidence);
- participation rates by employees in organisations offering training courses (training access);
- the number of hours of continuing training per participant (training intensity).

A ranking of all countries included in the survey is made in Table 4.1.

Table 4.1 Proportion of organisations offering continuing training, participation rates and participation hours in European countries with country ranking

Country	Org. with training (%)	*Rank*	Participation rate (%)	*Rank*	Hours	*Rank*	*Sum of ranks*
DK	96	*1*	55	*2*	41	*3*	*6*
IE	79	*7*	52	*6*	40	*5*	*18*
SE	91	*2*	63	*1*	31	*18*	*21*
FI	82	*6*	54	*4*	36	*12*	*22*
NO	86	*5*	53	*5*	33	*15*	*25*
FR	76	*8*	51	*7*	36	*11*	*26*
LU	71	*11*	48	*10*	39	*7*	*28*
NL	88	*3*	44	*15*	37	*10*	*28*
BE	70	*12*	54	*3*	31	*17*	*32*
ES	36	*20*	44	*14*	42	*1*	*35*
UK	87	*4*	51	*8*	26	*23*	*35*
PT	22	***23***	45	*13*	38	*8*	*44*
LT	43	*17*	20	*24*	41	*4*	*45*
CZ	69	*13*	49	*9*	25	*24*	*46*
AT	72	*10*	35	*17*	29	*20*	*47*
DE	75	*9*	36	*16*	27	*22*	*47*
EL	18	*24*	34	*18*	39	*6*	*48*
I T	24	*22*	47	*11*	32	*16*	*49*
HU	37	*19*	26	*22*	38	*9*	*50*
LV	53	*15*	25	*23*	34	*14*	*52*
RO	11	*25*	20	*25*	42	*2*	*52*
SI	48	*16*	46	*12*	24	*25*	*53*
BG	28	*21*	28	*20*	35	*13*	*54*
EE	63	*14*	28	*21*	31	*19*	*54*
PL	39	***18***	33	*19*	28	*21*	*58*

Source: Eurostat, 2000

In general there is no direct connection between the proportion of training enterprises with training courses, the opportunity for employees to participate in the enterprises' training courses and the intensity of the continuing training. This is due to the circum-

stance that the structure of the continuing training on offer can change if relatively large numbers of the enterprises' employees are included in the continuing training. If not only executives and specialists, who are offered comparatively extensive training, are included in continuing training activities, but the majority of all employees are as well, who are offered less intensive activities, then the average number of participation hours drops (Eurostat, 2000).

If a comparison is made of the three indicators, Scandinavian countries are on top of the lists together with Ireland, although the number of training hours for the many participants lags behind in some countries. These are followed by a large group of Central and Southern European countries. Most Eastern European countries are at the bottom of the ranks, although some of these have a high number of training hours (Behringer et al., 2005).

In most of the countries there are only slight disparities in participation rates to continuing vocational training courses by gender (Nestler et al., 2002). Both women and men have more opportunities to participate in training courses when they are employed by large organisations. In all countries, participation rates in large organisations are greater than the average participation rate. Also sector effects explain differences in participation in continuing vocational training courses, with financial intermediation of the sector with the highest expenditure per employee on training courses. In general, payments to external providers make up the largest portion of the direct costs of continuing vocational training courses.

In an analysis of available data on workplace training in European countries, Bassanini et al. (2005) show that large and innovative firms train more than small and non-innovative firms. Cross-country variation among large and innovative firms is, however, small. Therefore, aggregate cross-country differences are essentially due to variation among small and non-innovative firms.

Training increases with educational attainment and the skill-intensity of occupations, and it decreases with age. The decline related to age is higher, ceteris paribus, in countries with a more generous pension system, because the higher implicit tax on continuing work at age 60 to 64 reduces the expected time horizon required to recoup the costs of the investment. The authors therefore point out that pension reforms which reduce the implicit tax are likely to have as a by-product an increase in the training of senior workers.

Even when controlling for observable individual characteristics, country effects account for almost half of the explained variation in training participation. In fact, differences associated with country of residence remain, ceteris paribus, larger than differences associated with industry, occupation, education, age and firm size. Although this reflects partly cross-country differences in definitions and perceptions of training, this also reflects differences in the institutional and social framework, in government policies and in the macroeconomic conditions. The study finds a strong positive correlation between investment in R&D as percentage of GDP and training incidence that is suggestive of the interactions between skill development and innovative effort at the country level.

The study shows that the decrease in product market regulation across Europe has facilitated average training investment. Therefore, more competition in the product market is conducive to higher investment in training. However, more flexibility on the labour market affects training in a less straightforward manner. On the one hand, the diffusion of temporary contracts reduces the investment in training. On the other hand, the reduction in the degree of employment protection for regular workers increases the provision of

training. Therefore, labour market reforms that accelerate the diffusion of temporary contracts and at the same time increase the protection of a limited core of permanent employees produce negative effects on the accumulation of human capital taking place in organisations.

4.2.2 WERS

In line with the evidence on 'bundles' (Section 2.5), one can assume that new organisational practices must be compatible with other aspects in the organisation in order for these practices to be effective. Especially training policy in organisations is essential to support new organisational practices. In order to develop a work organisation in which employees are involved, training is essential.

The study of Whitfield (2000) provides evidence of a strong interrelationship between the adoption of individual new organisational practices and the level of training undertaken at the organisation. Moreover, there is strong evidence of a correlation between the adoption of a comprehensive set of such practices and training. The relationship between such bundles of new organisational practices and training is especially strong for the intensity of training, suggesting that the main impact of new forms of work organisation is to increase the amount of training given to a distinct group of employees rather than extending its coverage.

4.2.3 IAB

Most surveys restrict themselves to formal training in organisations, thereby neglecting aspects of informal training. An exception is study of Brussig et al. (2005) investigating whether the organisational determinants of formal further training are different from those of informal further training. The study shows that many of the factors that have a significant effect on formal further training also exert a significant influence on informal further training. For example, a higher share of qualified employees goes together with a stronger engagement of the organisation with regard to formal training but also with informal training. Or organisations going through a product innovation have a stronger offer of formal as well as informal training activities.

In addition, those factors which have a significant effect on formal as well as on informal further training act in the same direction. Organisations do not use informal further training as a cheap alternative to formal learning. Both forms of training should rather be understood as complements.

Important exceptions are characteristics of work organisation which are often related to informal but not to formal further training. Organisations with high demands on the willingness to co-operate or put high requests on the autonomy of their employees are especially active in the field of informal training.

In another study Brussig et al. (2004) relate the participation in informal training to qualification levels of the employees. Considering the greater diffusion of informal training and the expected lower access obstacles especially for the lower educated of this type of learning, informal training may contribute to levelling out existing educational inequalities. This cannot be confirmed empirically. On the contrary, the group of unqualified employees is last comer with regard to informal training. Although the difference is less

marked, the 'Matthews-effect' in formal training is also valid for informal training: 'those who have will get more and those who have not will get less'.

4.3 Matching required to available skills

4.3.1 WERS

A 'Matthews-effect' emerges also from the WERS (Kersley et al., 2006). The data show that those in the lower skilled occupations are less likely to receive training. Similarly, training provision is positively associated with the level of academic qualifications.

However, the WERS data also reveal the existence of a skills 'mismatch'. Many employees are actually 'under-employed' and their qualifications and skills under-used. On the one hand the provision of training has become more extensive, suggesting that skills are an increasing priority in British organisations. On the other hand, the authors also point out that there are opportunities to better use the skills that employees already possess.

4.3.2 PASO

This matching between required qualifications from jobs versus available qualifications from employees is also central in the study of Marx et al. (2004). Lots of policy documents stress that we live in a knowledge economy. And in order to produce knowledge, organisations need a lot of knowledge. This gives the impression that most jobs offered are complex and simplex work is hardly available for employees with fewer abilities. The study investigates if this is really the case and whether the increasingly better qualified Flemish employee also receives more complex tasks at the workplace.

The results of PASO research confirm that low qualified jobs have not at all disappeared. Almost one in five Flemish employees have a job that requires a short on the job training period, for which no education or experience is required, in which they work under direct supervision and do not need to take autonomous decisions. If one combines these simple jobs with the share of trained jobs, about half of Flemish employees have a job that requires no education and is not complex. 'Knowledge workers' remain scarce: only one in five employees has a complex job. Comparing this with the higher share of Flemish employees that are highly skilled, the skill level of labour supply seems to exceed the demand. While our educational system aims to deliver higher and highest skilled people, one can find oneself too highly skilled in our economy.

Not only is there a considerable share of simple and trained work in Flanders, it is also heavily concentrated in specific sectors and activities. In a mere 7% of organisations, more than 60% of the jobs is simple, while more than 80% of Flemish organisations report that less than 20% of the jobs are simple. The concentration of simple jobs is located in agriculture, some industrial sectors (such as food), but mainly in commercial services (trade and catering) which are responsible for most simple jobs.

While the analysis shows that simple jobs have not at all disappeared in the knowledge economy, at the same time the characteristics of these simple jobs have changed. Technological innovation and evolutions as globalisation and delocalisation have affected the industrial substructure of the economy diminishing the share of low qualified industrial

work. But the growing supply of services implies that simple jobs are increasingly to be found within service sectors. As a consequence the nature of low qualified work has changed significantly.

In so-called knowledge sectors the vast majority of employees have indeed a job that requires education or is complex. But these organisations are not more than 20% of all organisations. It is therefore correct that low qualified jobs have less of a future in real knowledge organisations. But it is still far from reality in view of the limited share of knowledge organisations in the whole economy. The economy is (still) no knowledge economy.

This important share of simple jobs requires the attention of labour market policy. Organisations with many simple jobs have to deal more than average with turnover, especially forced turnover, and with recruitment problems. Reasons given are related to working conditions (often contracts of limited duration and flexible working times) and wage expectations which are not in accordance with what is offered. These organisations also invest considerably less in 'human resources'. A training policy and a policy towards job enrichment and teamwork are less developed. In short, organisations with many simple jobs are confronted with a number of problems in their human resources management.

But also the employees in organisations with many simple jobs have a profile that accord to the label 'disadvantaged group on the labour market'. Many low qualified employees and migrants can be found in such organisations.

This means that organisations which offer simple jobs as well as the employees who work there, accumulate a number of characteristics that contain risks for a lasting integration in the labour market. A durable integration implies a career that offers sufficient security and contains sufficient learning and growth possibilities. Of course there will always be simple jobs that require no education, are performed under direct supervision and have no autonomy. Just as there will always be employees with less abilities and opportunities. But those employees need to be approached with care in order to limit risks. And such jobs should meet some minimal 'quality criteria' containing learning and growth opportunities for employees who perform these jobs. Therefore the design of these jobs must provide a certain autonomy, job enlargement and training. On the other hand aggravating working conditions should be monitored such as a lack of job security and too flexible working hours.

This care towards simple jobs is all the more important as the PASO data also show that precisely, and exclusively, those organisations with mainly simple jobs are those that expect more low qualified work in the future within their organisations.

5 Career trajectories and the quality of working life

5.1 Introduction

Lengthening life expectancy and falling birth-rates require another perspective on careers. The general assumption is that more people need to take part in the labour market and that careers will take longer but more attention must be given to the individual course of life and the career of employees with an increase in the number of short-term and/or partial career interruptions for periods of care or training. In this manner, career interruptions will no longer be the exclusive domain of women who care for children and of the unemployed but it will become an integral part of the life course of an increasing number of individuals.

In addition social and cultural developments such as the de-standardisation and individualisation of life courses, dissolving gender structures of traditional family arrangements, and growing labour market participation of women generate a growing diversity in individual life courses and consequently a growing heterogeneity of job career transitions (European Foundations, 2006f). This increased diversity is not only observable as differences between groups of individuals but also as variation across the different stages of a worker's individual life course. Within such a personalised life course, workers are engaged in a permanent search to find a proper balance between 'work life' and 'non-work life'. In order to reach the Lisbon employment objectives of more and better jobs for everyone, governments are being encouraged to implement policies aimed at achieving more harmony between work and family life.

Work-life balance is an important aspect of quality of working life. Another aspect is the design of jobs themselves. Do jobs allow those who perform them to exert some autonomy over work and learn from their work? Or does increasing work pressure and a lack of means to deal with the challenges posed by work lead to increasing stress? In Chapter 2, survey evidence was provided on organisational change. Here we deal with its impact on the design of jobs and their content. An appropriate job design is another condition to achieve more and better jobs. For if more people will have to work longer, it will be necessary that their jobs doesn't make them sick and that their jobs offer sufficient learning opportunities in order to renew and develop continuously their qualifications.

Employee surveys are by far the most suited information source on aspects of quality of working life. Organisation surveys are in first instance dealing with organisational changes, not on their outcomes for workers. However as some studies make use of linked employer – employee datasets, these findings will be presented in Section 5.3.

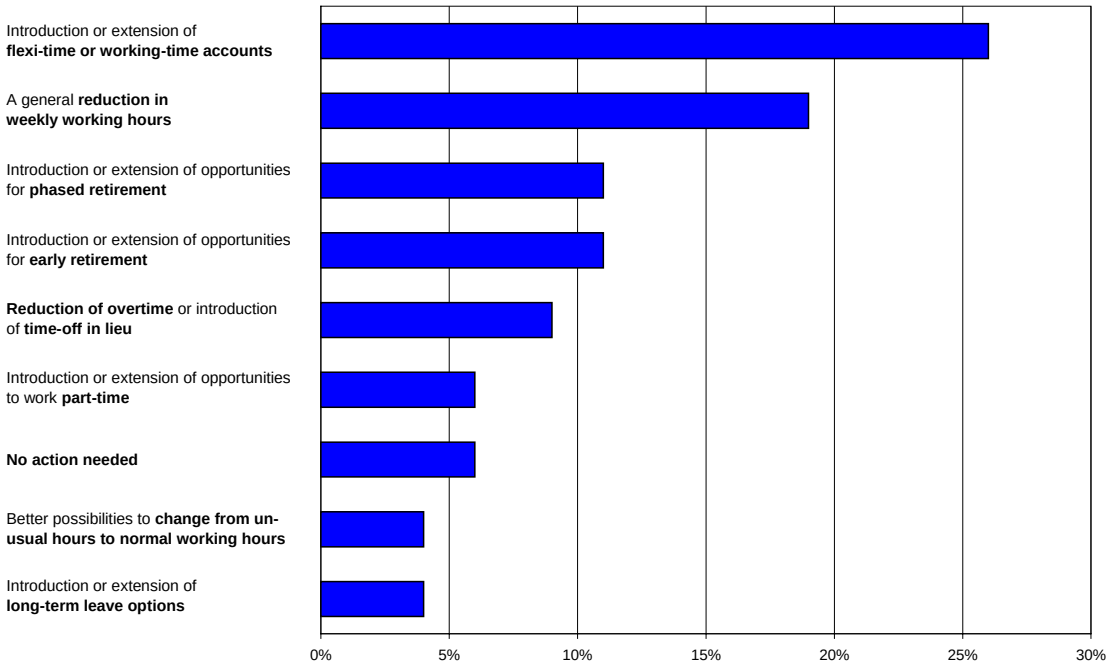
5.2 Career trajectories and work-life balance

5.2.1 ESWT

The ESWT provides recent and comparative information on this issue for the European countries. It concerns information provided by the management of organisations, but also from employee representatives – if a formal employee representation exists in the organisation. The ESWT especially pays attention to flexibility at the demand of employees, instead of at the demand of the organisation as is usually done. The survey therefore takes a work-life balance perspective.

Although in a majority of organisations, employee representatives considered it in general rather easy for workers in their organisation to reconcile the demands from and private lives, there is still room for improvement. There is a wide range of working-time aspects which are relevant for the work-life balance of employees, among others part-time work, family leave and sabbaticals, flexible working time arrangements and flexible retirement schemes. Among these, on the very top of the list of wishes of employee representatives with regard to the future working time policy in their organisation is the introduction or extension of working time accounts. 26% of all interviewed employee representatives named this as the only or most important measure for a further improvement of the work-life balance of 'their' employees (Figure 5.1). Further survey evidence on the incidence and determinants of such flexible working time arrangements was presented in Section 3.2.

Figure 5.1 Most desirable initiatives with regard to work-life balance according to the interviewed employee representatives



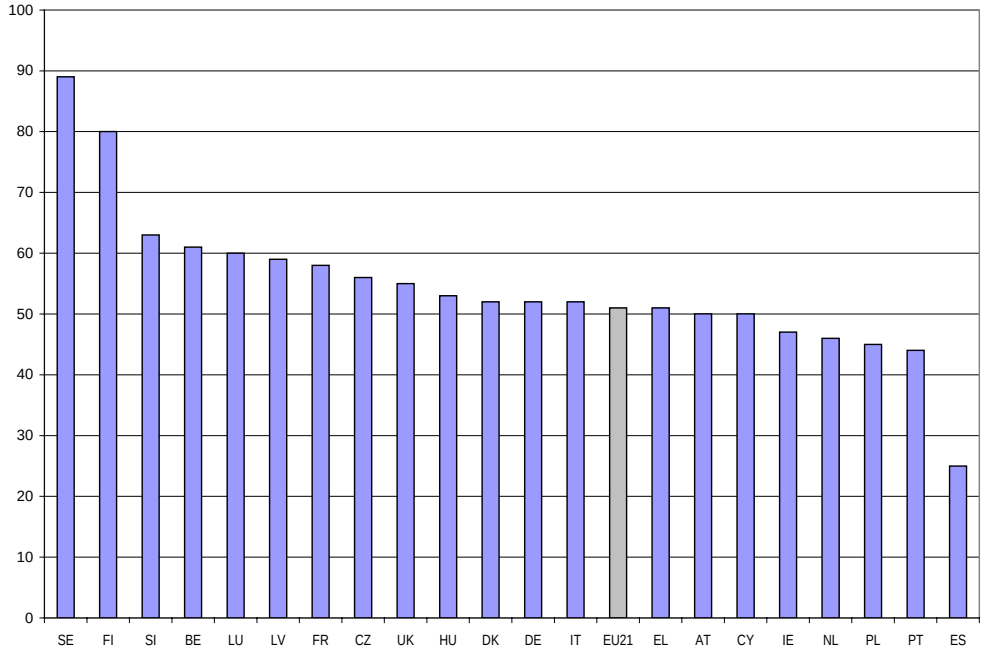
Source: European Foundation, 2006: 50

Although the concept of work-life balance should not be limited to aspects concerning family-life, family-related obligations and especially the responsibility for younger children are for many employees among the most important issues with regard to the possibilities of reconciling work and family life.

The ESWT therefore focuses on *parental leave* that usually – but not necessarily - starts after maternity leave is finished (European Foundation, 2006). It is usually the most longest and - from the perspective of an organisation - with regard to work organisation probably most difficult to handle kind of leave. The proportion of organisations with employees on parental leave varies from 45% to 60% in most of the 21 countries surveyed (Figure 5.2). Three countries stand out from the average score: on the one hand Spain shows an especially low share of such organisations and on the other hand in Finland and Sweden the share of organisations with recent experience in the handling of parental leave is far above the average. To a large degree, these differences depend on the length and financial conditions of the national parental leave regulations. In Spain, for example, the leave is totally unpaid but on the other hand regulation allows the employee to take a reduction on the working hours when having to take care of a minor child. At the other end of the spectre Swedish parents receive a compensation of 80% of their previous salary.

A multivariate analysis shows that sector, organisation size and the gender composition of the workforce are major factors explaining the propensity for organisations to experience leave. However the 'country effect' is most important and relates to national variations in statutory provisions in addition to other societal differences such as public childcare provisions and labour market conditions (European Foundation, 2007a).

Figure 5.2 Organisations with employees on parental leave during the last three years by country (%)



Source: European Foundation, 2007a: 15

In many countries, a political aim is to foster the *participation of men* in childcare activities. To this end some countries reserve a specific part of the parental leave period exclusively for fathers as an individual entitlement rather than providing a family-based leave entitlement. On average, 30% of the organisations with recent experience in parental leave reported that this included one or more male employees. Yet, there is an extremely large variance according to countries, with values ranging from as little as 1% in Cyprus and 2% in the Czech Republic to 69% in Sweden.

Although the right to parental leave has been established in all European Union Member States, important differences continue to exist between countries with regard to policy detail and patterns of take-up of such leave by parents. Again, these differences reflect varying regulations between countries. In both Sweden and Slovenia - the two countries with the highest reported incidences of establishments with men in parental leave - a specific part of the parental leave period is exclusively reserved for fathers, i.e. that the full period of leave is only granted if the father of the child actually takes a part of the leave.

The analysis underlines the powerful influence of national statutory provisions on the taking of parental leave by employees in companies, showing that financial support represents a critical determining factor. Moreover, social conventions play a key role in shaping take-up patterns of parental leave whereby it is widely expected that measures aimed at reconciling work and family obligations are to be used by women rather than men. Therefore, there is a significant gender imbalance in the take-up of parental leave currently in Europe (European Foundation, 2007a).

Parental leave is certainly the most frequent reason for leaving the organisation for a longer period with the intention to return later on. But increasingly other reasons like prolonged education or the care for elderly family members gain importance as motives for a temporarily limited absence from the workplace. Results of the survey show that long-term leaves for other purposes than the care for small children is granted by about every second organisation. About one in three organisations offers provision for other forms of long-term leave to manage care responsibilities, and a similar share of companies offer their employees education and training leave (European Foundation, 2007a).

The chances of being granted a long-term leave also differ according to the sector of activity. In many European countries, the public sector thus has indeed the role of a forerunner with regard to long-term leave options.

Within the framework of *phased retirement* schemes, employees beyond a certain age threshold have the possibility to gradually reduce the number of working hours when approaching the retirement age, taking into account the often reduced productivity of older workers e.g. due to health problems, but also the wishes of elder employees to have more leisure time and to be able to prepare themselves gradually to their new phase of life. Phased retirement enables elderly employees to stay integrated in the labour market, but at a reduced work pressure and with more time for recreation – albeit usually at the expense of an accordingly reduced income. In some countries, the loss of income due to the reduced number of working hours is at least partly cushioned by social transfer benefits (European Foundation, 2006).

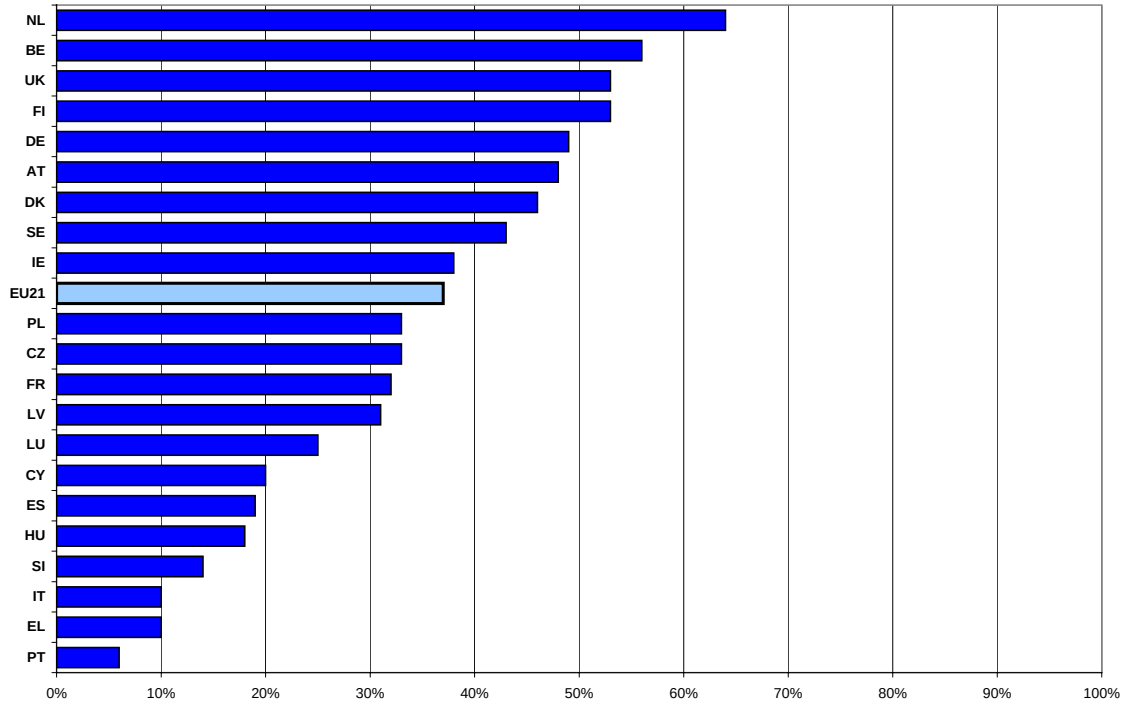
Phased retirement schemes are all in all offered in about 37% of those organisations with 10 or more employees which stated to have any employees aged 50 years or more on their payroll. While in many Middle and Northern European states the possibility to reduce the working hours before retiring is offered by a broad share of firms, in the Southern European countries such phased retirement schemes are a rather exotic exception

(Figure 5.3). Organisations in the services sector are significantly more likely to offer this opportunity than those in the industries.

Reasons for these cross-national differences are manifold and are to be encountered on both the supply and the demand side. The part-time cultures of the various countries for instance obviously play an important role in the spread of phased retirement offers. Firms currently not employing any part-timers are not very likely to be open towards wishes of employees to take phased retirement, which in principle is just a specific form of part-time work and as such requires similar prerequisites on part of the employer as any other part-time work. The fact that phased retirement is offered more than twice as much by organisations which currently employ part-timers compared to those without any part-timer on the payroll, further backs this observation.

On the other hand, the demand for phased retirement schemes can be supposed to be larger in countries where the general level of salaries (and pension schemes) is high enough to allow for a decent living even in case of working part-time only than in those where the income is urgently needed for the daily subsistence.

Figure 5.3 Share of organisations offering phased retirement to their employees, by country (%)



Source: European Foundation, 2007b: 24

5.2.2 WERS

The survey explored a number of leave and flexible working arrangements aimed at supporting employees with caring responsibilities, including working parents. The survey also considered management's attitudes to work–life balance – both from managers' and employees' perspectives (Kersley et al., 2006).

Managers were asked whether a range of flexible working arrangements were available to at least some employees. In order of availability these arrangements are:

- the ability to reduce working hours (e.g. switching from full-time to part-time employment);
- the ability to increase working hours (e.g. switching from part-time to full-time employment);
- the ability to change shift patterns;
- flexitime (no set start or finish time, but an agreement to work a set number of hours per week or per month);
- job-sharing (sharing a full-time job with someone else);
- home working (working at or from home in normal working hours);
- working during school term-time only;
- working 'compressed hours' (e.g. a nine day fortnight/ four and half day week);
- annualised hours;
- and finally zero hours contracts.

Generally, these practices were most common in larger organisations, in the public sector, and in workplaces where a union was recognised. Organisations where more than half the workforce was female were more likely to allow some employees to use each of the listed practices with the exception of home working and flexitime. Data from the panel survey reveal that the availability of all these practices within the same organisations has risen considerably between 1998 and 2004 (Kersley et al., 2006).

The survey also includes a series of questions about the availability of leave arrangements to support employees with caring responsibilities. Generally, the focus of the questions was on provision beyond the statutory entitlement. Fully paid maternity leave for some or all of the maternity leave period was most commonly provided, followed by fully paid paternity and or discretionary leave. The availability of such arrangements was higher in the public sector and in organisations with a recognised union. The panel survey data show a significant increase in the availability of parental leave, paid paternity/discretionary leave for fathers, and special paid leave in emergencies for at least some non-managerial employees (Kersley et al., 2006).

Arrangements for flexible working and time off work provide one indicator of employer commitment to work-life balance. Another indicator is provided by managers' attitudes to this aspect of working life. While still the majority view, a smaller proportion of managers believed that it was up to individual employees to balance their work and family responsibilities in 2004 than in 1998, implying that employers are increasingly recognising how the diverse circumstances facing employees impact upon their work. However, this change was not reflected in the views of the employees, indicating that where management views have shifted, this is not yet manifest to employees. Despite this employee viewpoint, the incidence of a range of paid leave and some flexible working arrangements increased considerably between 1998 and 2004, as reported by both managers and employees. This demonstrates that the change in management attitude has, to some extent, been backed up by action. It may be that even where formal policies are available to employees, take-up may be low if employees feel that they could be disadvantaged in terms of their future career because of management perceptions that employees using such policies are less committed to the organisation. Such perceptions could take a long time to change and so are not apparent over the period since 1998 (Kersley et al., 2006).

In an analysis of the linked employer – employee dataset of the WERS, Nisar (2005) investigates which establishment and employee characteristics influence the extent to which work-life programs occur in British organisations. A range of educational, occupation and work environment variables were found to have a significant role in explaining the extent to which organisations adopt flexitime practice. A common observation is that larger and more capital intensive workplaces provide greater opportunities for work-life balance.

One may argue that the realisation of business goals is compromised when work and family goals and priorities collide, as employees experience stress and job dissatisfaction. However, there is no evidence that organisations with flexitime arrangements have less stressed employees than non-flexitime organisations.

Further, there is a positive relationship between flexitime arrangements and demanding work conditions and job insecurity. These findings raise the possibility that organisations operating flexitime schemes pursue goals that are not fully explained by a 'working long hours culture' thesis. The results also suggest that educated and professional workers are more likely to avail themselves of the opportunity for flexitime working. It may be the case that attracting and retaining well-qualified workers is probably a goal well served by a flexitime working hours program.

Finally it may be argued that flexitime is an organisational practice contributing to the effective implementation of decentralised organisational structures because it supports employees in scheduling their own working hours. But the study only found a limited support for this supposed relationship.

Wood et al. (2007) go beyond a number of arrangements to improve work-life balance as such and relates family-friendly policies in organisations with new forms of work organisation and practices of equal opportunity. As personal time is a legitimate employee need, the equality and diversity agendas imply that any effective high-involvement management must be extended from employee involvement to embrace issues of working time. Until now, many presentations of high-involvement management have been very much employer-centered. So far they focused on labour flexibility and skill acquisition in order to create the social system that will support the requirements of modern technical systems rather than addressing workers' concerns as a top priority. A truly worker-centered approach, however, should include family-friendly practices. The pursuit of family-friendly management and the achievement of equal opportunities can in turn help to create the conditions in which people can work in a more highly involved way.

The study assesses whether there is a tendency towards an integrated worker-and-family-centered policy with new forms of work organisation and whether it heralds superior organisational performance.

The results provide little support for the 'business-case' in favour of family-friendly and equal-opportunities initiatives. But equally neither set of practices has a negative effect on performance. The study does confirm that new forms of work organisation are positively associated with financial performance, labour productivity and labour retention. However there are only a limited number of associations between organisational performance and family-friendly and equal-opportunity management. Nevertheless, this finding can also be used to reinforce the arguments for a holistic approach. It could precisely be because the employee involvement, equality and diversity issues are not integrated in organisational practice that the current approaches are not successful. In addition, the study is limited to short-term performance effects, while salience should also be given to longer-term economic objectives concerned with innovation and adaptation.

5.2.3 PASO

Delarue et al. (2003) review a wide range of possible measures to support the achievement of a work-life balance. As the labour market is more diverse, the more diverse preferences are on the labour market. What works for one group of employees in order to reach a satisfactory work-life balance, may not work for others. One could therefore expect to find a great diversity in combination measures. But PASO results are sobering. Thanks to e-mail, internet, web cam, ... the technical infrastructure is there to apply homework as a possible combination measure. But the vast majority of organisations show no interest. Paid work must be done at the workplace is their opinion.

Perhaps organisations look in the other direction to facilitate the combination of work and private life and allow for more 'home at work'? Here again, PASO results are sobering. Organisations that took initiatives regarding day nursery or pre- and after-school children's care are a rarity.

Maybe such initiatives are not necessary if employees are able to organise this combination by themselves. For example by having large time sovereignty. But this is also restricted to a happy few. In only a small minority of organisations, employees can be found that dispose of variable begin and end hours which they can choose.

The authors conclude that still much policy initiatives are required to support a combination of working and private life.

5.3 Quality of working life

5.3.1 OSA

This survey uses questions on work pressure to employers as a basis to look at the relationship between work pressure and the well-being of employees. Bekker et al. (2005) show that organisations where employers indicate a low work pressure also have a smaller outflow to invalidity from employees compared to organisations reporting a high work pressure. Yet, organisations with a varying work pressure have the highest outflow to invalidity. Organisations indicating that the work pressure has increased in the past two years have also a significantly higher outflow to invalidity.

The assessment by organisations on the proportion of their employees working under four important work risks are presented in Bekker et al. (2007). In rank order, employees are confronted with working under time pressure, physically heavy work, physically burdening working conditions and mentally heavy work. Physically heavy work is especially reported by organisations in construction, industry, agriculture and transport. Mentally heavy work is especially reported by organisations in care and in education. Between 2001 and 2006 the reported incidence of these work risks have hardly changed.

The reported levels of work pressure by organisations seem to indicate that work pressure has decreased somewhat between 2001 and 2004 and then increased again. The authors relate this trend to the economic cycle. When the economy picks up and demand increases for products and services, there is a time lag before organisations start to recruit new employees, with an increase in work pressure for current employees as a result. If the economy slows down, the opposite effect takes place.

By means of multivariate regression Wiezer et al. (2005) analyse the influence of organisational features on work pressure. Complex and unstable environments are identified as important predictors of high work pressure in organisations. The demands that the environment puts on organisations influence the demands that organisations put on their employees. The complexity of tasks will be high in an organisation operating in a complex environment. The predictability of work will be low in organisations operating in an unstable environment. As a consequence the level of steering problems and the complexity of these problems will increase leading to a higher amount of work.

In addition work pressure is higher in organisations with more flexible contracts and working hours. The pressure to work more flexibly results in higher quantitative demands on employees. The most important factor however is the nature of the job. Work pressure rises when people do physically hard work. This can be explained by the difficulty for organisations to recruit new employees for physically hard jobs. This leads to under manning in the organisation and a higher work pressure for existing employees.

5.3.2 WERS

An important aspect of quality of working life is the degree of autonomy in work. The survey asks for the influence of five aspects of the job. Ranked to the degree of influence as reported by employees, these are how they did their work; the order in which they carried out tasks; the pace at which they worked; the tasks they performed and the time they started or finished their working day (Kersley et al., 2006).

There had been no change since 1998 in the proportion expressing satisfaction with the amount of influence they had over their job. But employees with greater levels of influence over the various aspects of their job tended to report greater levels of satisfaction. This corroborates the hypothesis that job influence meets a basic human need on the part of the job. Among employees who had a lot of influence over each of the five aspects of their job, many were satisfied with the scope for using their own initiative and were satisfied with the amount of influence they had over their job. Among those with little or no influence over each of the five items, in contrast, only a small minority were satisfied. Such strong positive correlations between the degree of job influence and these specific elements of job satisfaction are notable not least because employees' satisfaction with these elements of their job is in turn positively correlated with the extent of their satisfaction over the sense of achievement they get from their work and their satisfaction with the work itself (Kersley et al., 2006).

Although many employees agreed that their job required them to work very hard and that they never seemed to have enough time to get their work done, there have been no substantive differences between 1998 and 2004 in the overall patterns of employees' responses on either indicator of work intensity. While the levels of well-being are positively related to the degree of job influence, they are negatively related to the degree of work intensity (Kersley et al., 2006).

The extent of influence over work is also the focus of Delbridge et al. (2001) in their analysis of the matched employer-employee dataset of WERS. More specifically the relationship is investigated between perception of job influence and employee participation schemes.

Meaningful employee participation in decision making requires that employees are able to exert a significant influence over their working environment. Such participation schemes take a variety of forms. Workers and their representatives may call for participation particularly for representative participation through consultative committees or works councils which are generally broad in orientation. Another form is management-initiated participation practices as quality circles, decision-making teams and total quality management. Many of these have been introduced as components of management packages attempting to improve organisational performance. Such schemes have been concerned with direct participation rather than representative participation and are likely to be focused more precisely on a specific part of the production process and concentrated an a tightly defined set of issues.

Criticism on forms of direct participation stress that it can only make limited changes to the way work is undertaken because most fundamental changes affect workers outside the immediate vicinity of the participation process and thus need to involve higher-level managers. Focused participation schemes such as teams and quality circles may therefore fail to provide employees with significant levels of control in decision making.

This study investigates whether such more focused types of participation schemes yield the same level of worker influence as the broader forms of participation. Do employees perceive that they have more influence over key aspects of their jobs in organisations having employee participation schemes? And is that different between focused forms of participation and broader schemes?

The main finding of the study is that employees in organisations that have schemes directed at increasing employee participation in decision making do perceive that they have greater influence over their jobs. This does not apply equally to all types of schemes, however. In general schemes that offer employees a broad involvement in decision making have a stronger association with perceived influence than schemes that are more focused on the point of production.

There is also little evidence that the two types of schemes interact positively with each other. Where broad participation schemes exist in conjunction with focused schemes, employees do not report significantly greater job influence.

This raises questions on the nature of new forms of work organisation. Organisational practices as quality circles and work teams seem hardly associated with meaningful increases in job influence in the eyes of employees. Only on the rare occasions where team members select their own team leader and thereby potentially exert influence beyond the point of production, is there evidence that work teams lead workers to perceive that they have greater job influence.

While it may be that new forms of work organisation lead to higher performance (Section 2.5), this study suggests that it is rather the process discipline and control rather than any increased involvement in decision making that contributes to this high performance.

Among concerns that productivity growth in Britain may be being driven primarily by labour intensification rather than by beneficial structural change in industry together with raised skill and efficiency, Green (2001) analyses data on work intensification from WERS during the 1980s and 1990s. It shows that work intensification from the 1980s has continued in the 1990s. In both decades there was also a substantial increase in the number of factors inducing hard work from employees. The most notable source of increased pressure for hard work has come from colleagues. Peer pressure has come before the 'hard-driving supervisor'.

In a subsequent study, Green (2004) further investigates the sources of work intensification. There is a widespread impression of an increasing tension and strain across many organisations in recent decades. Possible sources may be the increased competitive pressure being passed on to employees, the rising power of bosses related to declining unions and technological and organisational changes that have raised the ability of managers both to monitor the labour process and to control the flow of work to workers.

Several explanations are supported by the analysis. First work effort has intensified more in organisations where technological and organisational changes have occurred. On the one hand they are associated with greater managerial control over the labour process and this improved control is likely to bring higher effort levels. On the other hand improvements in technical efficiency enhance the ability to deliver work to the worker, thereby reducing the porosity of the day.

Another explanation of work intensification is that the use of new organisational practices can increase employees' supply of effort substantially. The findings suggest that new forms of work organisation - both employee involvement schemes and effort incentives - appear to engender greater effort. Managers are reporting increases in both types of policies and these would be sufficient to predict noticeable overall work intensification.

Also the decline in the importance of collective bargaining is found to raise effort as well as increased use of non-standard employees, particularly temporary agency workers and contractors.

However more recent analysis of the last wave of WERS paints a more optimistic view on the evolution of job quality. Brown et al. (2006) report considerable evidence of improvement in job quality in Britain. Changes in a number of dimensions of job quality are examined over the period 1998 to 2004. These are job satisfaction, stress and effort, employee influence over their work, job security, the quality of employer-employee relations, and wages. The data are used to separate out jobs in workplaces that shut between 1998 and 2004 and jobs in workplaces that opened over the same period so as to investigate the question of whether 'new' jobs in newly formed workplaces are better than 'old' jobs destroyed in workplace closure.

Satisfaction with the sense of achievement that employees got from work improved considerably between 1998 and 2004 for men and women, public and private sector workers, in new workplaces compared to workplaces that shut and for all income groups. There was little change in satisfaction with pay and satisfaction with influence.

There was little change in work intensity between 1998 and 2004. Therefore the upward trend in work intensity reported in the 1990s has not continued but neither has it been reversed. There was an increase in employee stress measured by the extent to which employees worry about work outside of working hours, and this change was particularly noticeable among employees in new workplaces compared to employees in workplaces that shut down between 1998 and 2004.

There was a considerable increase in the proportion of the workforce who felt that they were secure in their job between 1998 and 2004. This increase in job security was noticeable among all income groups, among men and women and in both the public and private sectors.

There were improvements in employee perceptions of the influence they had over the pace at which work was done and the way in which employees did their work between 1998 and 2004. This finding suggests that the long run trend towards reductions in em-

ployee influence which has been apparent since 1986 may have come to a halt or been reversed.

The report also investigates the question of whether or not new jobs are worse than the jobs that they replaced. With the exception of one measure of job quality, new jobs were not found to be worse than old jobs. Improvements in job quality evident across the population as a whole were also observed in new jobs compared to the destroyed jobs that they replaced. However, workers in new jobs did report being more stressed by work than workers in jobs that had been destroyed. Overall though, there is little in the results to support the more pessimistic claims that new jobs are worse.

However, against the general improvements in job quality must be set the fact that there has been no change in reported work intensity levels from 1998 to 2004. The high levels of work intensity during the late 1990s evident from previous surveys then appear to have persisted. Also, the report found that more employees reported worrying about work outside of working hours, which can be seen to be an indicator of rising levels of stress. This is a cause of concern, given the negative impact of stress on the health and well-being of workers. It is also the case that, despite the improvements from 1998, the reported levels of job quality in 2004 continued to show a wide dispersion such that, for example, around one third of all employees did not report being satisfied with the sense of achievement that they get from work.

Econometric estimation suggests that around half of the improvement in employee sense of achievement from work was attributable to improvements in perceptions of job security and employment relations. This result supports the view that an underlying cause of the improvements in job quality is likely to have been favourable labour market conditions, which will have improved perceptions of job security and given employers an incentive to improve the climate of employment relations in order to retain difficult to replace staff.

However, as cyclical economic factors may explain at least a portion of the improvement, then the observed improvements may be reversed by a future economic downturn. Whether or not there has been secular progress as opposed to cyclical improvements will require research over a longer period of time.

Haile (2007) undertakes a multilevel analysis of the determinants of job satisfaction in Britain using linked employer-employee data from WERS. The study points at the need for promoting flexible working (hours) arrangement and, where feasible, the opportunity to be able to work from home which are found to impact job satisfaction significantly positively. These are aspects of the working arrangement that can be fostered in order to promote well-being, something attainable given the current advances in IT and internet technology.

The study also highlights the need to reduce the level of skills mismatch, for example through on the job training. Employees in jobs that require higher or lower levels of skills than the skills they own are found to be significantly less likely to be satisfied with their job.

Finally, with regard to satisfaction with involvement in decision making, the study emphasises the need for promoting workers' involvement in decision making, where there are no prohibitive skill constraints, to raise this facet of job satisfaction and reaping the benefit thereof.

Ramsay et al. (2000) criticise the focus of many studies on the direct relationship between a set of new organisational practices and performance outcomes. This presumes

that any connection operates through the incentive and motivational effects captured as 'high involvement' employee outcomes. No attempt is made to examine the alternative labour process conceptualisation, which is that performance gains from new organisational practices arise instead from work intensification, offloading of task controls and increased job strain.

The analysis provides little support for either the high-involvement work organisation thesis or the labour process view. The results do confirm the relationship between new organisational practices and a number of measures of workplace performance. However the assumption that positive performance outcomes from new organisational practices flow via positive employee outcomes is highly questionable. The findings caution against theorisations of work organisation that give primacy to employee orientations to work as an explanatory variable for organisational performance.

But neither supports the analysis that gains to management always comes at the expense of labour through degradation of work. This proposition is no more tenable than the orthodox high-involvement work organisation view.

The lack of empirical support for any of the two views puts doubts on the models used to understand organisational change. It is quite plausible that outcomes flowing from managerial innovation are much less determinate than the models apprehend. Much management may simple be incompetent at implementing or maintaining new organisational practices with the result that the putative outcomes of new organisational practices fail to eventuate. Or to put it more charitably, it may be that there are severe limitations to the strategic management of labour which severely constrain the potential for innovative approaches to be implemented successfully. Finally, this may also be proof of the indeterminacy of labour with its capacity to resist passively or actively most managerial practices.

Appendix
Information on the methodology of organisation surveys

The methodology of the 12 organisation surveys selected in this literature review is presented in a comparable way and in alphabetical order in the following tables. Further information on these organisation surveys, especially regarding their content and the questions asked can be found on the website of the WORKS research project. Under the section 'digital toolkit' (http://www.worksproject.be/entrypage.php) a breakdown of all the questionnaires is available according to a list of dimensions on the environment of the organisation, its division of labour and its personnel management.

Table A1. Characteristics of CIS

Survey	CIS (Community Innovation Survey)
Organisation	Eurostat
Country	Europe
Website	http://www.cordis.lu/innovation-smes/src/cis.htm
Years	1992, 1996, 2001, 2005
Longitudinal	Cross-sectional
Source of population	National registers of enterprises (EU Regulation 2186/1993)
Population	Enterprises >10 employees
Sectors	Mining and quarrying (NACE 10-14) Manufacturing (NACE 15-37) Electricity, gas and water supply (NACE 40-41) Wholesale trade (NACE 51) Transport, storage and communication (NACE 60-64) Financial intermediation (NACE 65-67) Computer and related activities (NACE 72) Architectural and engineering activities (NACE 74.2) Technical testing and analysis (NACE 74.3)
Stratification variables	Economic activity; Size (4); Region
Research unit	Enterprise
Questioning method	Postal (mainly)
Sample	N = 125,000
Two-stage survey	No
Main topic	Innovation

Table A2. Characteristics of COI

Survey	COI (Changements Organisationnels et l'Informatisation)
Organisation	Centre d'Etudes de l'Emploi (CEE)
Country	France
Website	http://www.enquetecoi.net
Years	1997, 2006
Longitudinal	Cross-sectional
Source of population	Enquête Annuelle d'Entreprise (EAE)
Population	Enterprises of >10 employees
Sectors	Industry Energy Construction Trade Hotels and restaurants Transport Financial services Business services Media Hospitals Public administration
Stratification variables	Economic activity (20); Size (5)
Research unit	Enterprise
Questioning method	Postal
Sample (net-response)	N = 15,000
Two-stage survey	Yes (employees), but only of enterprises >20 employees
Main topic	Organisational change and ICT-usage

Table A3. Characteristics of CVTS

Survey	CVTS (Continuing Vocational Training Survey)
Organisation	Eurostat
Country	Europe (EU-22)
Website	http://europa.eu.int/comm/education/programmes/leonardo/new/leonardo2/cvts/index_en.html
Years	1994, 2000, (2006)
Longitudinal	Cross-sectional
Source of population	National registers of enterprises (EU Regulation 2186/1993)
Population	Enterprises of >10 employees
Sectors	Whole economy (SIC-codes C-O) except for A (agriculture), B (fishing), P (private households) and Q (extra-territorial org.)
Stratification variables	Economic activity (20); Size (6)
Research unit	Enterprise
Questioning method	Mainly postal, but also telephone and at least 15% face-to-face (including for all organisations > 500 empl.)
Sample (net-response)	N = 76,000
Two-stage survey	No
Main topic	Training

Table A4. Characteristics of DISKO

Survey	DISKO (Danish Innovation System - Comparative Analysis)
Organisation	Aalborg University; Department for Business Studies
Country	Denmark
Website	http://www.business.auc.dk/pie
Years	1996, 2001
Longitudinal	Cross-sectional (partly panel)
Source of population	N.A.
Population	Enterprises >25 employees
Sectors	All private business sectors
Stratification variables	All enterprises of >25 employees
Research unit	Enterprise
Questioning method	Postal
Sample (net-response)	N = 2,007
Two-stage survey	Yes, linked to employee representative survey
Main topic	Organisational and technical change

Table A5. Characteristics of ESWT

Survey	ESWT (European Survey on Working time and Work-Life balance)
Organisation	European Foundation for the Improvement of Living and Working Conditions
Country	Europe (EU-21 : EU15 + Cyprus, Czech Republic, Hungary, Latvia, Poland and Slovenia)
Website	http://www.eurofound.eu.int/areas/worklifebalance/eswt.htm
Years	2005
Longitudinal	No
Source of population	Address registers of local branches from TNS Infratest
Population	Enterprises of > 10 employees
Sectors	Whole economy (SIC-codes C-O) except for A (agriculture), B (fishing), P (private households) and Q (extra-territorial org.)
Stratification variables	Economic activity (2); Size (5)
Research unit	Workplace
Questioning method	Telephone
Sample (net-response)	N = 21,000
Two-stage survey	Yes, linked to survey of employee representatives
Main topic	Working times

Table A6. Characteristics of Eurostat - ICT

Survey	Eurostat-ICT (Community Survey on ICT Usage and e-Commerce in Enterprises)
Organisation	Eurostat
Country	Europe (EU 25 + Iceland, Norway, Romania, Bulgaria and Turkey)
Website	http://europa.eu.int/estatref/info/sdds/en/infosoc/infosoc_base.htm
Years	2002, 2003, 2004, 2005, (2006)
Longitudinal	Cross-sectional
Source of population	National registers of enterprises (EU Regulation 2186/1993)
Population	Enterprises >10 employees
Sectors	Manufacturing (section D), Construction (section F), Wholesale and retail trade (section G), Hotels & camping sites (groups 55.1 & 55.2), Transport, storage & communication (section I), Retail, renting & business activities (section K), Motion picture, video, radio & television activities (groups 92.1 & 92.2)
Stratification variables	Economic activity (16); Size (3)
Research unit	Enterprise
Questioning method	Mainly postal, but also face-to-face telephone and electronic
Sample (net-response)	N = 140,000
Two-stage survey	No
Main topic	ICT-usage

Table A7. Characteristics of IAB

Survey	IAB (Institut für Arbeits- und Berufsforschung)
Organisation	IAB (Institut für Arbeits- und Berufsforschung)
Country	Germany
Website	http://betriebspanel.iab.de/
Years	1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, (2006)
Longitudinal	Panel
Source of population	Employment statistics register of the Federal Employment Services
Population	Workplaces with 1 or more employees with social security contributions
Sectors	Whole economy.
Stratification variables	Economic activity (16); Size (10)
Research unit	Workplace
Questioning method	Face-to-face
Sample (net-response)	N = 16,000
Two-stage survey	No (however link with administrative database on employees)
Main topic	Employment, Training, Flexibility, Industrial relations, Innovation

Table A8. Characteristics of ISI

Survey	ISI (New Production Concepts in Germany)
Organisation	ISI (Fraunhofer-Institut für Systemtechnik und Innovationsforschung, Abteilung Innovationen in der Produktion)
Country	Germany
Website	http://www.isi.fraunhofer.de/i/projekte/erhebung_pi.htm
Years	1987, 1990, 1993, 1997, 2001, 2003
Longitudinal	Cross-sectional
Source of population	ISI address list based on previous questioning Adresses Projektträger Produktion und Fertigungstechnik (PFT) Hoppenstedt Firmen-Datenbank
Population	Enterprises of >10 employees
Sectors	Metal, electronic, chemical and synthetics processing industry
Stratification variables	No stratification applied
Research unit	Workplace
Questioning method	Postal
Sample (net-response)	N = 1,450
Two-stage survey	No
Main topic	Organisational and technical changes

Table A9. Characteristics of OSA

Survey	OSA (Organisation for Strategic Labour Market Research)
Organisation	OSA (Katholieke Universiteit Brabant, Instituut voor sociaal-wetenschappelijk beleidsonderzoek en advies)
Country	Netherlands
Website	http://www.uvt.nl/osa/data/
Years	1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005
Longitudinal	Panel
Source of population	LISA-database (Countrywide Information System Workplaces and Establishments)
Population	Workplaces of >5 employees
Sectors	Whole economy
Stratification variables	Economic activity (9); Size (5)
Research unit	Workplace
Questioning method	Postal and telephone
Sample (net-response)	N = 3,170
Two-stage survey	No
Main topic	Work organisation, personnel policy, transitional labour market

Table A10. Characteristics of PASO

Survey	PASO (Panel Survey of Organisations)
Organisation	K.U.Leuven (Katholieke Universiteit Leuven)
Country	Belgium
Website	http://www.paso.be
Years	2002, 2003, 2004
Longitudinal	Panel
Source of population	Statistiek Rijksdienst voor Sociale Zekerheid (RSZ) Onderwijsbestand Vlaamse Gemeenschap Statistiek Rijksdienst voor Sociale Zekerheid voor Plaatselijke en Proviciale Overheden (RSZPPO)
Population	Workplaces with at least 1 employee
Sectors	Whole economy.
Stratification variables	Economic activity (7); Size (5); Region (5)
Research unit	Workplaces
Questioning method	Websurvey (Postal for small workplaces)
Sample (net-response)	N = 2,000
Two-stage survey	No
Main topic	Work organisation, personnel policy and management

Table A11. Characteristics of REPONSE

Survey	REPONSE (Relations Professionnelles et Négociations Entreprises)
Organisation	DARES (Direction de l'Animation de la Recherche des Etudes et des Statistiques)
Country	France
Website	http://www.travail.gouv.fr/etudes-recherche-statistiques/statistiques/relations-professionnelles/enquete-reponse-2004-2005-premiers-resultats/presentation-enquete-4188.html
Years	1992, 1998, 2004
Longitudinal	Cross-sectional (partly panel)
Source of population	Base de données des entreprises et des établissements (SIRENE)
Population	Workplaces >20 employees
Sectors	Private sector (excl. agriculture)
Stratification variables	Economic activity (16); Size (5)
Research unit	Workplaces
Questioning method	Face to face
Sample (net-response)	N = 2,930
Two-stage survey	Yes linked to survey of employee representatives and a survey of employees
Main topic	Personnel policy and industrial relations

Table A12. Characteristics of WERS

Survey	WERS (Workplace Employee Relations Survey)
Organisation	Department of Trade and Industry, Department: Employment Relations, Employment Market Analysis and Research
Country	United Kingdom
Website	http://www.dti.gov.uk/er/emar/wers5.htm
Years	1980, 1984, 1990, 1998, 2004
Longitudinal	Cross-sectional (partly panel)
Source of population	Inter-Departemental Business Register (IDBR)
Population	Workplaces of >5 employees
Sectors	Whole economy (SIC-codes D-O) except for A (agriculture), B (fishing), C (mining), P (private households) and Q (extra-territorial org.)
Stratification variables	Economic activity (12); Size (9)
Research unit	Workplace
Questioning method	Face-to-face
Sample (net-response)	N = 3,250
Two-stage survey	Yes, linked with survey of employee representatives and a survey of employees
Main topic	Employment relationship, industrial relations

Bibliography

Alda H. & Bellmann L. (2002), 'Organisatorische Änderungen und betriebliche Beschäftigungs- und Qualifikationseffeckte 1999-2001' (Organisational changes and company labour demand and qualification effects), Mitteilungen aus der Arbeitsmarkt- und Berufsforschung, vol. 35, n° 4, p. 523-545.

Alda H., Allaart P. & Bellmann L. (2005). Churning and institutions. Dutch and German establishments compared with micro-level data, IAB Discussion Paper nr. 12, IAB, Nürnberg.

Askenazy P. & Moreno-Galbis E. (2004), The impact of technological and organizational changes on labor flows. Evidence on French establishments, Delta discussion paper n°25, Paris.

Bassanini A., Booth A., Brunello G., De Paola M. & Leuven E. (2005), Workplace Training in Europe, IZA Discussion Paper No. 1640, Forschungsinstitut zur Zukunft der Arbeit, Bonn

Bauer T. & Bender S. (2003), 'Technological change, organisational change and job turnover', Labour Economics, vol. 11, n° 3, p. 265-291.

Behaghel L. (2006), 'Changement technologique et formation tout au long de la vie' (Technological change and training throughout the lifecourse), Revue économique, vol. 57, n° 6, p. 1351-1382.

Behringer F., Käpplinger B., Moraal D. & Schönfeld G. (2005), Striking Differences in Continuing Training in Enterprises across Europe: Comprehensive Overview of Key Results of CVTS 2, BIBB, Bonn.

Bekker S., Gielen A., Kerkhofs M., Meihuizen H., Román A., Schippers J. & de Voogd-Hamelink M. (2005), Trendrapport Vraag naar arbeid 2004 (Trendreport on the demand for work 2004), OSA, Tilburg.

Bekker S., Ester P., Evers G., Gielen A., Josten E., Kerkhofs M., Román A., Schippers J. & de Voogd-Hamelink M. (2007), Trendrapport Vraag naar Arbeid 2006 (Trendreport on the demand for work 2006), OSA, Tilburg.

Bellmann L. (2004a), 'Zur Entwicklung der Leiharbeit in Deutschland' (The development of temporary agency work in Germany), Sozialer Fortschritt, n° 53, p. 135 - 142.

Bellmann L. & Alda H. (2004b), 'Betriebliche Personal- und Beschäftigungspolitik zwischen Flexibilität und Stabilität' (Company personnel and employment politics between flexibility and stability), WSI-Mitteilungen, vol. 57, n° 5, p. 255-261.

Borghans L. & ter Weel B. (2003). ICT en de organisatie van werk in Nederland. Een studie op basis van het OSA Arbeidsvraagpanel 1988-2000 (ICT and the organisation of work in the Netherlands. A study on the basis of the OSA Labour Demand Panel 1988-2000). OSA-publicatie A197, OSA, Tilburg.

Borghans L. & ter Weel B. (2006), 'The division of labour, worker organisation and technological change', The Economic Journal, vol. 116, n° 509, p. 45-72.

Brown A., Charlwood A., Forde C. & Spencer D. (2006), Changing job quality in Great Britain 1998 – 2004, Employment relations research series n° 70, Department of Trade and Industry, London.

Brussig M. & Leber U. (2004), Verringert informelle Weiterbildung bestehende Qualifikationsunterschiede? Aktuelle Ergebnisse einer Betriebsbefragung (Does informal further training diminishes existing qualification distinctions? Recent results of a company survey), WSI-Mitteilungen, vol. 57, b° 1, p. 49-57.

Brussig M. & Leber U. (2005), 'Betriebliche Determinanten formeller und informeller Weiterbildung im Vergleich' (Company determinants of formal and informal further training in comparison), Zeitschrift für Personalforschung, vol. 19, n° 1, p. 5-24.

Caroli E. & Van Reenen J. (1999), Skill biased organizational change? Evidence from a panel of British and French establishments, Cepremap paper, No. 9917.

Coutrot T. (2000), Post-fordism and managerial strategies in France, in Clarke L., de Gijsel P. & Janssen J. (eds.), The dynamics of wage relations in the new Europe, Kluwer Academic Publishers, Dordrecht.

Coutrot T. (2004), 'Innovations et stabilite des emplois' (Organizational and Technical Innovations and Employment Stability), Travail et Emploi, n° 98, avril 2004, p. 37-49.

Deeke A. (2005), Kurzarbeit als Instrument betrieblicher Flexibilität. Ergebnisse aus dem IAB-Betriebspanel 2003 (Shortened work as an instrument of flexibility in companies. Results of the IAB Company panel 2003), IAB Forschungsbericht n° 12, IAB, Nürnberg.

Delarue A., De Winne S., Gryp S., Maes J., Marx S., Peeters A., Ramioul M., Sels L., Van Hootegem G., (2003), Organisatie in bedrijf. De resultaten van PASO in vogelvlucht (Organisation at work. A bird's-eye view on PASO results), Katholieke Universiteit Leuven (Hoger Insituut voor de Arbeid / Departement TEW / Departement Sociologie), Leuven.

Delarue A., Van Hootegem G., Huys R. & Gryp S. (2004), Werkt teamwerk? (Does teamwork work?), Acco, Leuven.

Delbridge R. & Whitfield K. (2001), 'Employee perceptions of job influence and organizational participation', Industrial Relations, vol. 40, n° 3, p. 472 – 489.

De Prins P. & Henderickx E. (2004), De quartaire sector als 'buitenbeentje' getypeerd: arbeid en organisatie in de overheid, het onderwijs, de zorg- en socio-culturele sector (The quaternary sector typified as outsider: work and organisation in government services, education, care and socio-cultural sectors), Katholieke Universiteit Leuven (Hoger instituut voor de arbeid / Departement TEW / Departement Sociologie), Leuven.

Devaro J. (2006), 'Teams, autonomy and the financial performance of firms', Industrial Relations, vol. 45, n° 2, p. 217 – 269.

European Commission (1997), Partnership for a new organization of work. Bulletin of the European Union - Green Paper, Supplement 4/97, Office for the Official Publications of the European Communities, Luxembourg.

European Commission (2004), Innovation in Europe: Results for the EU, Iceland and Norway, Office for the Official Publications of the European Communities, Luxembourg, http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-59-04-257/EN/KS-59-04-257-EN.PDF (accessed 24 May 2007).

European Foundation for the Improvement of Living and Working Conditions (1998), New Forms of Work Organisation. Can Europe Realise its Potential? Results of a survey on direct participation in Europe, Office for Official Publications of the European Communities, Luxembourg, http://www.eurofound.europa.eu/pubdocs/1998/03/en/1/ef9803en.pdf (accessed 23 May 2007).

European Foundation for the Improvement of Living and Working Conditions (2006), Working time and work-life balance in European companies, Office for Official Publications of the European ommunities, Luxembourg.

European Foundation for the Improvement of Living and Working Conditions (2007a), Parental leave in European countries, Office for Official Publications of the European ommunities, Luxembourg.

European Foundation for the Improvement of Living and Working Conditions (2007b), Early and phased retirement in European countries, Office for Official Publications of the European ommunities, Luxembourg.

European Foundation for the Improvement of Living and Working Conditions (2007c), Part-time work in European countries, Office for Official Publications of the European ommunities, Luxembourg.

European Foundation for the Improvement of Living and Working Conditions (2007d), Extended and unusual working hours in European countries, Office for Official Publications of the European ommunities, Luxembourg.

European Foundation for the Improvement of Living and Working Conditions (2007e: forthcoming), Social dialogue, working time arrangements and work-life balance at the establishment, Office for Official Publications of the European ommunities, Luxembourg.

European Foundation for the Improvement of Living and Working Conditions (2007f: forthcoming), Flexibility at the firm level: A Typology of Working Time Flexibility across Europe, Office for Official Publications of the European Communities, Luxembourg.

Eurostat (2000), Continuing training in enterprises in Europe: Results of the second European Continuing Vocational Training Survey in enterprises, Eurostat, Luxemburg.

Forth J. & Millward N. (2004), 'High-involvement management and pay in Britain', Industrial relations, vol. 43, n° 1, p. 98 – 119.

Haile G. (2007), A multilevel analysis of workplace job satisfaction in Britain: evidence from a linked employer-employee data, Working Paper, Policy Studies Institute, London.

Green F. (2001), 'It's been a hard day's night: the concentration and intensification of work in the late twentieth-century Britain', British Journal of Industrial Relations, vol. 39, n° 1, p. 53-80.

Green F. (2004), 'Why has work effort become more intense?', Industrial Relations, vol. 43, n° 4, p. 709-741.

Green F. (2006), Demanding work: the paradox of job quality in the affluent economy, Princeton University Press, New Jersey.

Greenan N. & Mairesse J. (2006), 'Les changements organisationnels, l'informatisation des enterprises et le travail des salariés' (Organisational changes, informatisation of organisations and the work of employees), Revue économique, vol. 57, n° 6, p. 1137-1176.

Gryp S., Van Hootegem G., Marx S., Cambré B. & Delarue, A. (2005), Buigen of barsten: via flexible arbeid naar flexibele organisaties? (To bend or to break: achieving flexible organisations through flexible work?), Acco, Leuven.

Joergensen K. (1998), Information Technology and Change in Danish Organisations - Results from a survey, DRUID Working Paper No. 98-8, Danish Research Unit on Industrial Dynamics, Aalborg.

Kersley B., Alpin C., Forth J., Bryson A., Bewley H., Dix G. & Oxenbridge S. (2006), Inside the Workplace: Findings from the 2004 Workplace Employment Relations Survey, Routledge, London.

Kleinknecht A., Oostendorp R., Pradhan M. & Naastepad C. (2006), 'Flexible Labour, Firm Performance and the Dutch Job Creation Miracle', International Review of Applied Economics, vol. 20, n° 2, p. 171–187.

Kristensen F. (1997), The Performance of Different Organisations under Different Marked Conditions: An Empirical Analysis of the Organisational Structure and Performance of 1900 Danish Firms, DRUID Working Paper No. 97-13, Danish Research Unit on Industrial Dynamics, Aalborg.

Lay G. (1997), Neue Produktionskonzepte und Beschäftigung (New production concepts and employment), Mitteilungen aus der Produktionsinnovationserhebung n° 8, Fraunhofer Gesellschaft – ISI, Karlsruhe.

Lay G. (1999), Interaction of Process and Product Innovation, in G. Lay, P. Shapira & J. Wengel (Eds.), Innovation in Production. The Adoption and Impacts of New Manufacturing Concepts in German Industry, Physica-Verlag, Heidelberg, p. 42-52.

Lay G., Dreher C. & Kinkel S. (1999), Performance Impacts of New Production Concepts, in G. Lay, P. Shapira & J. Wengel (Eds.), Innovation in Production. The Adoption and Impacts of New Manufacturing Concepts in German Industry, Physica-Verlag, Heidelberg, p. 31-41.

Laursen K. (2001), The Importance of Sectoral Differences in the Application of (Complementary) HRM Practices for Innovation Performance, DRUID Working Paper No 01-11, Danish Research Unit on Industrial Dynamics, Aalborg.

Laursen K. & Mahnke V. (2001), Knowledge Strategies, Firm Types, and Complementarity in Human-Resource Practices, in: Journal of Management and Governance, vol. 5, n° 1, p. 1–27, 2001.

Lorenz E., Michie J. & Wilkinson F. (2003), HRM Complementarites and Innovative Performance in French and British Industry, Paper presented at the PIE-conference (Product Innovation Interactive Learning Economic Performance of Danish SME), 24 May 2004, Paris.

Lund R. & Gjerding A.N. (1996), The flexible company. Innovation, work organisation and human ressource management, DRUID Working Paper No. 96-17, Danish Research Unit on Industrial Dynamics, Aalborg.

Marx S., Ramioul M. & Sels, L. (2004), Wordt de bandwerker winkeljuffrouw? Functie- en scholingsstructuren in Vlaamse organisaties (Is the assembly line worker becoming a saleswomen? Qualification and education structures in Flemish organisations), Katholieke Universiteit Leuven (Hoger Insituut voor de Arbeid / Departement TEW / Departement Sociologie), Leuven.

Nestler K. & Kailis E. (2002), 'Disparities in access to continuing vocational training in enterprises in Europe', Statistics in Focus – Theme 3: Population and Social Conditions, n° 22/2002, Eurostat, Luxemburg, http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-NK-02-002/EN/KS-NK-02-022-EN.PDF (accessed 26 May 2006).

Nielsen P. (2003), Knowledge Organizations. Employee Involvement and Participation in Knowledge Organizations, Paper presented at the 2003 International Comparative Analysis of Enterprise (micro) Data Conference (CAED), Cass Business School, London, 15 – 16 september 2003.

Nielsen P. & Lundvall B.A. (2003), Innovation, learning organizations and industrial relations, DRUID Working Papers n° 03-07, Danish Research Unit on Industrial Dynamics, Aalborg.

Nisar T. (2005), The incidence and impact of flexitime work arrangements, Mimeo, School of Management, University of Southampton, Southampton.

Pérotin V. & Robinson A. (2000), 'Employee participation and equal opportunities practices: productivity effect and potential complementarities', British Journal of Industrial Relations, vol. 38, n° 4, p. 557 – 583.

Pfeifer C. (2005), 'Flexibility, dual labour markets and temporary employment. Empirical evidence from German establishment data', Management Revue, vol. 16, n° 3, p. 404-422.

Promberger M. (2005), Leiharbeit. Flexibilitäts- und Unsicherheitspotenziale in der betrieblichen Praxis (Temporary work. Flexibility and uncertainty potential in company practice), in M. Kronauer & G. Linne (Hrsg.), Flexicurity. Die Suche nach Sicherheit in der Flexibilität (Flexicurity. The search for security in flexibility), Edition Sigma, Berlin, p. 183-204.

Ramioul M. (2006), Organisational change and the demand for skills, in U. Huws (ed.), The transformation of work in a globalised knowledge economy, towards a conceptual framework, HIVA, Leuven.

Ramsay H., Scholarios D. & Harley B. (2000), 'Employees and high-performance work systems: testing inside the black box', British Journal of Industrial Relations, vol. 38, n° 4, p. 501 – 531.

Schank T. & Schnabel C. (2004), Betriebliche Determinanten des Überstundeneinsatzes (Company determinants of overtime use), in L. Bellmann & C. Schnabel (Hrsg.), Betriebliche Arbeitszeitpolitik im Wandel (Company working time politics in flux), Beiträge zur Arbeitsmarkt- und Berufsforschung 288, IAB, Nürnberg, p. 37-62.

Walkowiak E. (2006), 'Renouvellement de la main-d'oeuvre et modernization des enterprises' (Renewal of the workforce and modernisation of organisations), Revue économique, vol. 57, n° 6, p. 1205-1234.

Whitfield K. (2000), 'High-performance workplaces, training and the distribution of skills', Industrial Relations, vol. 39, n° 1, p. 1 – 25.

Wiezer N., Smulders P. & Nelemans R. (2005), 'De invloed van organisatiekenmerken op werkdruk in organisaties' (The influence of organisational features on work pressure in organisations), Tijdschrift voor arbeidsvraagstukken, vol. 21, n° 3 , p. 228-244.

Wood S. & De Menezes L. (2007), Family-friendly, equal-opportunity and high-involvement management in Britain, in Boxall P., Purcell J. & Wright P. (2007), The Oxford handbook of Human Resource Management, Oxford University Press, Oxford, p. 581-598.

Zamora P. (2006), 'Changements organisationnels, technologiques et recours à la formation dans les enterprises industrielles' (Organisational and technological changes and the provision of training in industrial organisations), Revue économique, vol. 57, n° 6, p. 1235-1258.